

SUB-COMMITTEE ON
RADIOCOMMUNICATIONS AND SEARCH
AND RESCUE

1st session
Agenda item 30

REPORT TO THE MARITIME SAFETY COMMITTEE

Table of Contents

Section	Page No.
1 GENERAL - ADOPTION OF THE AGENDA	4
2 DECISIONS OF OTHER IMO BODIES	6
3 GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)	6
4 WORK CONSEQUENTIAL TO THE 1988 SOLAS GMDSS CONFERENCE	8
5 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)	14
6 IMPLEMENTATION OF GMDSS REQUIREMENTS IN RESPECT OF EXISTING FISHING VESSELS	17
7 EMERGENCY RADIOCOMMUNICATIONS: FALSE ALERTS AND INTERFERENCE	17
8 SHIP IDENTIFICATION	18
9 MATTERS CONCERNING SEARCH AND RESCUE, INCLUDING THOSE RELATED TO THE 1979 SAR CONFERENCE AND THE INTRODUCTION OF THE GMDSS	20
10 COMPLETION OF THE INTERNATIONAL SAR PLAN	24
11 RESCUE OPERATIONS TO BE CARRIED OUT INSIDE WRECKS	25
12 SAR TRAINING	25
13 RO-RO FERRY SAFETY	25
14 PERFORMANCE STANDARDS FOR SHIPBORNE RADIO EQUIPMENT	26

Section	Page No.
15 RADIOCOMMUNICATION ITU-R STUDY GROUP 8 MATTERS	28
16 DEVELOPMENT OF MEASURES COMPLEMENTARY TO THE INF CODE	29
17 TRANSMISSION OF UPDATING INFORMATION FOR ELECTRONIC NAVIGATIONAL CHARTS	29
18 ITU WORLD RADIOCOMMUNICATION CONFERENCE MATTERS	30
19 REVIEW OF RESOLUTIONS A.534(13) ON THE CODE OF SAFETY FOR SPECIAL PURPOSE SHIPS AND A.686(17) ON THE CODE ON ALARMS AND INDICATORS, AS AMENDED	32
20 SATELLITE SERVICES (INMARSAT AND COSPAS-SARSAT)	33
21 INTERNATIONAL CODE OF SIGNALS	36
22 REVIEW OF RESOLUTION A.703(17) ON TRAINING OF RADIO PERSONNEL IN THE GMDSS	36
23 IMO STANDARD MARINE COMMUNICATION PHRASES	37
24 ROLE OF THE HUMAN ELEMENT IN MARITIME CASUALTIES: GUIDELINES FOR THE ON-BOARD USE AND APPLICATION OF COMPUTERS	37
25 SAFETY OF PASSENGER SUBMERSIBLE CRAFT	38
26 REVIEW OF REPORTING REQUIREMENTS IN IMO INSTRUMENTS	39
27 WORK PROGRAMME	40
28 ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 1997	41
29 ANY OTHER BUSINESS	41
30 ACTIONS REQUESTED OF THE COMMITTEE	43

LIST OF ANNEXES

ANNEX 1	-	AGENDA OF THE FIRST SESSION INCLUDING A LIST OF DOCUMENTS
ANNEX 2	-	DRAFT MSC CIRCULAR ON IMPLEMENTATION OF THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)
ANNEX 3	-	PROPOSED MODIFICATIONS TO RECOMMENDATION ITU-R M.541-5
ANNEX 4	-	DRAFT MSC CIRCULAR ON GUIDANCE TO ADMINISTRATIONS ON IMPROVING CAPABILITY OF SHORE AUTHORITIES TO CONTACT SHIPS DURING SITUATIONS INVOLVING DISTRESS OR SAR OPERATIONS
ANNEX 5	-	DRAFT AMENDMENTS TO RESOLUTION A.706(17), WORLD-WIDE NAVIGATIONAL WARNING SERVICE
ANNEX 6	-	STATEMENT BY THE DELEGATION OF BAHRAIN
ANNEX 7	-	PROPOSED AMENDMENTS TO RESOLUTION A.810(19) - PERFORMANCE STANDARDS FOR FLOAT-FREE SATELLITE EPIRBs OPERATING ON 406 MHz
ANNEX 8	-	DRAFT ASSEMBLY RESOLUTION ON GUIDELINES TO ADMINISTRATIONS ON DEVELOPMENT OF SHORE-BASED SAR TELECOMMUNICATION INFRASTRUCTURE
ANNEX 9	-	STATEMENT BY THE TUNISIAN DELEGATION
ANNEX 10	-	STATEMENT BY THE DELEGATION OF MEXICO
ANNEX 11	-	DRAFT REVISED WORK PROGRAMME OF THE SUB-COMMITTEE

1 GENERAL - ADOPTION OF THE AGENDA

1.1 The Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) held its first session from 19 to 23 February 1996 at the Headquarters of the Organization and unanimously elected Mr. J. Rasmussen (Denmark) as Chairman and Mr. U. Hallberg (Sweden) as Vice-Chairman for 1996.

1.2 The session was attended by representatives from the following countries:

ARGENTINA	JAPAN
AUSTRALIA	LATVIA
BAHRAIN	LIBERIA
BELGIUM	MALTA
BRAZIL	MEXICO
CANADA	NETHERLANDS
CHILE	NORWAY
CHINA	PANAMA
COLOMBIA	POLAND
CUBA	PORTUGAL
CYPRUS	REPUBLIC OF KOREA
DENMARK	ROMANIA
EGYPT	RUSSIAN FEDERATION
ESTONIA	SOLOMON ISLANDS
FINLAND	SPAIN
FRANCE	SWEDEN
GHANA	TUNISIA
GERMANY	TURKEY
GREECE	UKRAINE
ICELAND	UNITED KINGDOM
INDONESIA	UNITED STATES
IRELAND	URUGUAY
ISRAEL	VENEZUELA
ITALY	

and by the following Associate Member of IMO:

HONG KONG

1.3 The following United Nations specialized agencies and intergovernmental and non-governmental organizations were also represented:

INTERNATIONAL TELECOMMUNICATION UNION (ITU)
 WORLD METEOROLOGICAL ORGANIZATION (WMO)
 INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO)
 INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO)
 COMMISSION OF THE EUROPEAN COMMUNITIES (EEC)
 INTERNATIONAL MOBILE SATELLITE ORGANIZATION (Inmarsat)
 COSPASSARSAT
 INTERNATIONAL COMMITTEE OF THE RED CROSS (ICRC)
 EUROPEAN CONFERENCE OF POSTAL AND TELECOMMUNICATIONS
 ADMINISTRATIONS (CEPT)
 INTERNATIONAL CHAMBER OF SHIPPING (ICS)
 INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)

INTERNATIONAL CONFEDERATION OF FREE TRADE UNIONS (ICFTU)
INTERNATIONAL ASSOCIATION OF LIGHTHOUSE AUTHORITIES (IALA)
INTERNATIONAL RADIO MARITIME COMMITTEE (CIRM)
INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF)
INTERNATIONAL FEDERATION OF SHIPMASTERS' ASSOCIATIONS (IFSMA)
INTERNATIONAL LIFEBOAT FEDERATION (ILF)
INTERNATIONAL ROAD TRANSPORT UNION (IRU)
INTERNATIONAL COUNCIL OF CRUISE LINES (ICCL)

1.4 In welcoming participants, Mr. E.E. Mitropoulos, Director of the Maritime Safety Division, on behalf of the Secretary-General, referred to the important decisions taken by the Maritime Safety Committee at its sixty-fifth session and the 1995 SOLAS Conference on Ro-Ro Ferry Safety pertinent to the Sub-Committee's work.

He said that, in establishing the COMSAR Sub-Committee, the merger of the closely related and interdependent subjects of distress and safety radiocommunications and search and rescue (SAR) was most appropriate as it emphasized the importance of the new Sub-Committee and the benefit of this closer co-operation which should lead naturally to improved standards, better communication procedures, fewer false alerts and a greater contribution to safety of life at sea in general.

Referring to the 1995 SOLAS Conference, he said the Sub-Committee would need to develop additional requirements, guidelines and performance standards so that all mandatory and recommendatory measures agreed by the Conference are in place by the target dates set by the Conference.

He said the Sub-Committee would consider the decisions of the ITU World Radiocommunication Conference (WRC) 1995 relating to IMO's work and should comment on them and propose a plan of joint IMO/ITU action to ensure that the interests of the maritime community are fully covered at future WRCs.

With regard to SAR, he indicated the progress made intersessionally in the development of the International SAR Plan, harmonization of aeronautical and maritime SAR procedures and the revision of the IMOSAR and MERSAR manuals, as well as, the proposed amendments to the 1979 SAR Convention.

He also was of the opinion that completion of the international SAR and GMDSS Master Plans were subjects of major importance on which the Sub-Committee should focus its attention over the next three sessions.

He referred to the concern expressed at the Assembly, Council and MSC at the proliferation of Intersessional Working Groups and Correspondence Groups and advised the Sub-Committee to very carefully examine any proposals to establish such Groups.

Finally he referred to the approved Guidelines for the Organization and method of work of the MSC and MEPC and their subsidiary bodies and the assigned priorities listed in the Sub-Committee's work programme (COMSAR 1/2, annex) and the importance of bearing the guidelines and priorities in mind when considering recommendations to the MSC on the work programme.

1.5 The agenda of the session, including a list of documents submitted under each agenda item, is given at annex 1.

2 DECISIONS OF OTHER IMO BODIES

The Sub-Committee noted, in general, decisions pertaining to its work taken by the Committee at its sixty-fifth session, the twenty-sixth session of the LSR Sub-Committee, the twenty-seventh session of the

STW Sub-Committee, the thirty-eighth session of the DE Sub-Committee (COMSAR 1/2), the forty-first session of the NAV Sub-Committee, the third session of the FSI Sub-Committee (COMSAR 1/2/1), the nineteenth session of the Assembly (COMSAR 1/2/2), the 1995 SOLAS Conference (COMSAR 1/2/3) and also information on the outcome of DE 39 and took action as reported under the relevant sections of this report.

3 GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)

Matters related to the GMDSS Master Plan

3.1 The Sub-Committee noted that the latest edition of the GMDSS Master Plan (GMDSS/Circ.6) was circulated on 1 June 1995 to Member Governments and subsequently two corrigendas have been circulated. A number of responses to MSC/Circ.684 have been received since December 1995 and these will be used for updating the GMDSS Master Plan and a new circular (GMDSS/Circ.7) will be issued following COMSAR 1.

3.2 The Sub-Committee noted that a lot of the data in the GMDSS Master Plan may require updating and invited Member Governments to check their national data, in GMDSS/Circ.6, for accuracy and to provide the Secretariat with any necessary amendments, as soon as possible. The Committee was requested to similarly urge Members to examine GMDSS/Circ.7, when circulated, and provide any necessary amendments and also to respond to MSC/Circ.684, if they have not already done so.

3.3 The Sub-Committee noted COMSAR 1/3 (United States) on GMDSS information available over Internet on a computer bulletin board operated by the United States Coast Guard Navigation Centre, where a new computer system has been installed. The United States wished to share GMDSS information, experience and problems with other Administrations as the system is implemented.

Sixth North-Sea Regional Co-ordination Conference under the GMDSS (NRC/GMDSS)

3.4 The Sub-Committee noted a report by Belgium (COMSAR 1/3/4) on the sixth NRC/GMDSS Conference which was held in Ostend from 30 May to 1 June 1995 to discuss a number of regional matters related to the GMDSS.

3.5 The United Kingdom delegation raised the problem of maintaining coast station watch on the frequency 500 kHz until 1 February 1999. The United States indicated that it had discontinued some services based on 500 kHz and that this had not affected its SAR services or operations.

3.6 The Sub-Committee agreed that there was a need to continue distress and safety services on 500 kHz until 1999 but recommended that regional co-ordination meetings, similar to those held for the North Sea by

* Send comments concerning the GMDSS in the United States to E-mail: CGComms/g-s@cgsmtmp.uscg.mil, or telephone facsimile to +1(202) 267-4106.

Computer Access. Access to this computer can be made directly, at no charge, by Internet World Wide Web, and anonymous File Transfer Protocol (FTP), at the following addresses:

WWW address: <http://www.navcen.uscg.mil/>

FTP address: [ftp.navcen.uscg.mil](ftp://ftp.navcen.uscg.mil/)

Information access by computer modem is also still available through +1(703) 313-5910. A 24-hour watchstander is available at +1(703) 313-5900 or E-mail: nisws/navcen01@cgsmtmp.uscg.mil.

the NRC/GMDSS, were held elsewhere in the world to ensure continuation and coverage of coast station watch on 500 kHz. This could assist Governments to mutually reduce the burden of all maintaining watch on 500 kHz until 1999.

3.7 The delegation of the Russian Federation informed the Sub-Committee that the 7th Baltic/Barents Sea Regional Meeting on Co-operation regarding the GMDSS (BBRC/GMDSS-7) would be held in Moscow from 13 to 14 May 1996; invitations to and details of the meeting were being circulated.

Review of resolution A.606(15)

3.8 ICS (COMSAR 1/3/5), supported by some delegations, referred to the technological and other changes in short/medium-range and long-range radiocommunications since the GMDSS was first conceived in 1979 which are having a significant effect on the way ships carry out their non-safety communications. ICS considered that this may eventually result in the ship's GMDSS installation being used solely for distress, safety and routine navigational communications and this may be one of the causes of indecision on the part of Governments when considering the need to upgrade their shore-based maritime radio facilities to GMDSS standards.

3.9 The Sub-Committee agreed to bear this point in mind when reviewing and evaluating resolution A.606(15) and considering the need to obtain a more definite response from those Governments which are still undecided as to the GMDSS shore-based facilities that should be provided nationally.

Phased installation scheme for conversion to the GMDSS

3.10 The United Kingdom (COMSAR 1/3/7), informed the Sub-Committee that in response to COM/Circ.121, it had commenced a scheme whereby shipowners can adopt a phased installation programme which allows the installation of GMDSS equipment in stages while still using the equipment fitted for the old distress system.

3.11 The Sub-Committee, agreeing that the principle of phased introduction of GMDSS equipment might be applied, provided the requirements of SOLAS regulation IV/1.5.1 were met and the equipment would not be used until the GMDSS installation is complete and other GMDSS requirements met and that the radio operators were trained in the GMDSS, prepared the draft MSC/Circular on Implementation of the Global Maritime Distress and Safety System, given in annex 2, which the Committee is invited to approve for circulation to Member Governments.

3.12 Members were invited to submit to COMSAR 2 a summary of GMDSS equipment installation plans for ships under their flag and in addition, information on the number of GMDSS operator certificates they have issued and the number of certificates they have yet to issue to meet GMDSS manning standards by 1 February 1999. The Secretariat was instructed to summarize the submissions received in a document and submit it to COMSAR 2.

1995 ILF Conference

3.13 As instructed by the Committee (MSC 65/25, paragraph 3.11), the Sub-Committee considered resolution 3 of the 17th International Lifeboat Conference (MSC 65/13/2) which urges ILF Members to assist the work of IMO in promoting effective implementation of the GMDSS. The Sub-Committee expressed its appreciation to the ILF Conference and to ILF Members for any assistance they could give with regard to putting in place all the necessary components of the system before its full implementation on 1 February 1999.

Information on Portuguese SAR database

3.14 The Sub-Committee noted information provided by Portugal (COMSAR 1/INF.8) on the establishment of a national database to be used by SAR Organizations. The database contains information on Portuguese ships MMSIs and satellite EPIRBs and other important SAR information and can be accessed 24 hours a day.

Replies to the questionnaire on casualties

3.15 The Sub-Committee noted that no replies to the questionnaire on casualties had been submitted (COM/Circ.70/Rev.1) and deferred consideration of this sub-item to COMSAR 2.

3.16 The Sub-Committee urged Members to provide replies to the questionnaire resulting from any investigations into casualties which revealed problems with the GMDSS so that these matters could be considered by the Sub-Committee and action taken to prevent recurrence of the same problems.

Exemptions from radio requirements

3.17 The Sub-Committee noted a table prepared by the Secretariat (COMSAR 1/3/8) providing information on the number of exemptions granted by SOLAS Contracting Governments under regulation IV/3 during the period from 1993 to 1995. The Sub-Committee also noted that some information provided by Contracting Governments to the Secretariat contained information on exemptions granted in accordance with old SOLAS regulation IV/5 in force prior to the 1988 SOLAS amendments, which is not applicable to the format approved by COM 40.

4 WORK CONSEQUENTIAL TO THE 1988 GMDSS CONFERENCE

Clarification of SOLAS GMDSS provisions

4.1 The Sub-Committee considered COMSAR 1/3/1(United States) and COMSAR 1/7/7 (Norway) and decided that semi-automatic* and automatic** relays of distress alerts should not be permitted in the GMDSS (COMSAR 1/3/1, paragraphs 1.5.2 and 3). Further clarification of this and other procedures are covered in the recommended changes to Recommendation ITU-R M.541 on Operational Procedures for DSC, given in annex 3. The Secretariat was instructed to advise ITU-R Study Group 8 and Working Party 8B of these recommendations as well as the need to modify Recommendation ITU-R M.493. The Committee was invited to endorse this action.

4.2 The Sub-Committee also decided that performance standards for all DSC shipborne equipment should be modified to reflect this decision and instructed the Technical Working Group to consider COMSAR 1/3/1 for appropriate action at COMSAR 2.

4.3 Members were requested to ensure that all DSC equipment type approved for the GMDSS which has a provision for automatic and semi-automatic relays of distress alerts be modified to be in conformance with

* **Semi-automatic:** An operator receiving an unacknowledged distress alert on DSC, presses a button which transmits a DSC distress relay signal. The MMSI and position of the distressed ship is automatically derived from the received distress alert, but can also be manually entered by the operator. All GMDSS DSC radios have this feature.

** **Automatic:** A DSC radio receiving a distress alert, transmits a DSC distress relay signal if the alert has not been acknowledged within five minutes, or if a second alert from the distressed ship is received. No action by a radio operator is necessary. Only certain GMDSS DSC radios have this feature.

Recommendation ITU-R M.541, as amended.

4.4 The Sub-Committee prepared COMSAR/Circ.1 regarding relays of distress alerts by digital selective calling and instructed the Secretariat to circulate it to Member Governments. The Committee is invited to endorse this action.

4.5 The NAV Sub-Committee was invited to take COMSAR/Circ.1 into account when considering the development of the Code of Safe Navigation and Watchkeeping. The Secretariat was instructed to bring this paragraph and COMSAR/Circ.1 to the attention of NAV 42.

4.6 The Sub-Committee decided that all distress alerts from DSC equipment and Inmarsat-C SESs should include the current ship's position. For the existing DSC equipment which does not have automatic position updating or integral position determination equipment the requirements should be modified to delete the position information which is over 24-hours old, activate a special alarm and/or visual indication and replace the ten digits used for the position information with the digit "9". The four digits used for the time of the position validation should be replaced with the digit "8". For Inmarsat-C, the distress alert includes the time at which the position was last updated, using the 24-hour clock, and an indication as to whether that time refers to the previous 24-hours or some period prior to that.

4.7 The Technical Working Group was instructed to prepare draft amendments to the performance standards in accordance with COMSAR 1/3/1, paragraphs 3.1.1, 3.1.2; and 3.1.3 for consideration at COMSAR2.

4.8 The Sub-Committee instructed the Secretariat to inform ITU-R Study Group 8 and Working Party 8B of these recommended changes which relate to Recommendations ITU-R M.493 and ITU-R M.541.

4.9 The Sub-Committee, noting that a number of performance standards referenced by footnotes to SOLAS regulation IV/14 have been amended by the Assembly since publication of the 1992 consolidated edition of SOLAS, instructed the Secretariat to amend the references in the footnotes when preparing the next edition of the publication.

4.10 The Sub-Committee, recognizing the need for automatic position updating for GMDSS radiocommunication equipment, invited the Committee to authorize the Sub-Committee to develop a draft new SOLAS regulation on this subject. Consequential amendments would also be necessary with regard to existing regulation IV/13.

4.11 The Committee was also invited to request NAV 42 to consider paragraph 4.10 when developing requirements for carriage of electronic position-fixing equipment.

4.12 NAV 42 was also requested to:

- .1 include in its performance standards for electronic position-fixing receivers an NMEA 0183 version 2 or IEC 1162 interface connector requirement for connection to GMDSS equipment; and
- .2 take into account the need to update the position information in GMDSS alerting systems at intervals not exceeding 4 hours and verify positions generated by electronic position-fixing systems, when developing the Code of Safe Navigation and Watchkeeping.

4.13 The Sub-Committee considered COMSAR 1/7/3 (Australia) and agreed that resolution A.806(19) on performance standards for shipborne MF/HF radio installations capable of voice communication, narrow-band direct-printing and DSC should be amended to include a minimum display screen size of 4 lines with 40

alpha numeric characters per line.

4.14 The Sub-Committee decided that the composition of distress messages should, as far as is possible, avoid the use of abbreviations and, if used, abbreviations should be restricted to a minimum number of commonly used terms. This decision should be brought to the attention of the ITU-R Study Group 8 Working Party 8B for use when considering modifications to Recommendation ITU-R M.541.

4.15 The Sub-Committee also considered COMSAR 1/7/4 (United Kingdom) and agreed with their request to note the disruption caused to GMDSS communications due to inappropriate use of distress acknowledgement and distress relays by ships. The delegation of the United Kingdom suggested that it may be inappropriate for ships to acknowledge and relay distress alerts using DSC. The Sub-Committee did not totally agree with removal of this capability but recognized that it could be a problem and invited administrations and manufacturers to ensure that DSC distress acknowledgements and relay calls on all equipment can only be done manually. The Sub-Committee prepared COMSAR/Circ.2, which is intended to show a simple procedure for ships to follow when necessary to respond to DSC distress alerts in a sea area A2. The Secretariat was instructed to circulate it to Member Governments. The Committee was invited to endorse this action.

4.16 The Sub-Committee, considering COMSAR 1/3/2 (United States), agreed that shore authorities should be able to contact ships sending distress alerts in a more effective manner and prepared the draft MSC circular on guidance to Administrations on improving the capability of shore authorities to contact ships during situations involving distress or SAR operations, given at annex 4, which the Committee was invited to approve for circulation to Member Governments.

Provision of registration databases

4.17 The Sub-Committee considered COMSAR 1/3/3 (United States) relating to the provision of registration databases used by RCCs.

4.18 The Sub-Committee was of the opinion that there is a need to revise resolution A.764(18) so that it applies to all databases of identities used in GMDSS preformatted distress alerts, and ensure that information is available to RCCs on a 24-hour basis. Data on emergency contacts ashore is especially important to SAR personnel. Databases containing GMDSS identities should include date and, where feasible, source fields indicating when and from what source the identity was last updated. The Committee was invited to include revision of resolution A.764(18) in the Sub-Committee's work programme with a target completion date of 1998.

4.19 The Sub-Committee agreed to give consideration at COMSAR 2 to inviting ITU to add review of Articles 25, 26 and Appendix 9 of the Radio Regulations, to the agenda of the next competent World Radiocommunication Conference, if these items are to be kept in the Radio Regulations. The Sub-Committee was of the opinion that these Articles should be amended to apply resolution A.764(18) to ITU's database of GMDSS identities, to help to ensure that Administrations and organizations provide up-to-date information on GMDSS identity assignments, and to help ensure that such information is available to RCCs on a 24-hour basis.

4.20 The Sub-Committee, realizing the value of maritime mobile service identities (MMSIs) in identifying individual ships, invited the Committee to include MMSIs in the proposed International Ship Information Database (ISID).

4.21 The Sub-Committee agreed to consider at COMSAR 2 the value of including MMSIs in port State databases and was of the opinion that Administrations participating in port State control agreements could be invited to bring this issue to the attention of the relevant regional bodies.

4.22 The Sub-Committee also agreed to consider the matter of revalidating actual MMSIs used on board ships. Members were invited to submit comments and proposals on this matter for consideration at COMSAR 2.

4.23 The Sub-Committee invited NAV 42 to consider including the following new paragraph in the appropriate regulation of the revised SOLAS chapter V:

".... Each Contracting Government undertakes to ensure that suitable arrangements are made for assigning and registering Global Maritime Distress and Safety System identities and for making information on these identities available to Rescue Co-ordination Centres on a 24-hour basis. Where appropriate, international organizations maintaining a registry of these identities shall be notified of these assignments."

4.24 The Sub-Committee invited Inmarsat to:

- .1 apply resolution A.764(18) to its database of Inmarsat-C (maritime) and Inmarsat-E identities, and to other Inmarsat maritime identities where appropriate; and
- .2 make available both listed and unlisted registrations of ship earth stations to RCCs as a matter of urgency.

4.25 The Sub-Committee considered COMSAR 1/3/6 (ICS) relating to the interruption of communications between RCCs and ships assisting in a SAR case, several important questions relating to the **Achille Lauro** case were raised. Members and Inmarsat were invited to provide more detailed information relating to this and similar cases and specifically information related to:

- .1 ability to block routine communications to ships participating in the distress case;
- .2 procedures for establishing and re-establishing communications with ships able to provide assistance;
- .3 methods and procedures to guard against saturation of the available communication channels during a distress incident; and
- .4 procedures to be applied aboard ships by the master to ensure the continuity of communications with RCCs.

4.26 The Sub-Committee considered COMSAR 1/4/4 (Norway) on the review of the locating function and could not agree to add a requirement to carry manually activated EPIRBs operating on frequency 121.5 MHz in survival craft due to the potential increase in false alerts and confusion to direction-finding equipment, which may result from multiple locating signals. However, the Sub-Committee did agree that a supplemental locating beacon should be added to the GMDSS, particularly, for use with fixed wing aircraft in remote areas, but could not, at this time, agree on the most suitable frequency. In view of this and the recommendations contained in Resolution 6 of the 1995 SOLAS Conference (SOLAS/CONF.3/46) the Sub-Committee invited the Committee to extend the target completion date of this sub-item in its work programme until 1997. Resolution 6 of the Conference requests that performance standards for low power locating beacons be developed for use on ro-ro ferries and that suitable frequencies be allocated for their use. Pending the Committee's instructions on these matters, the Sub-Committee invited Members to submit comments and proposals to COMSAR 2, taking into account the locating capabilities of search and rescue aircraft and the weight limitations on SAR aircraft for such additional facilities.

4.27 The Sub-Committee noted that the joint meeting of the SAR and Operational Working Groups during COMSAR 1 was considered a very useful tool to advance proposals affecting both GMDSS operational requirements and SAR requirements. It was agreed to continue this practice at future sessions.

Priorities

4.28 Considering COMSAR 1/4 (Denmark) on priorities for maritime distress, urgency and safety communications, the Sub-Committee confirmed its earlier decision to request four levels of priority for automatic systems being designed for future use in the GMDSS. This will not apply to existing Inmarsat systems. The four levels of priority are as follows:

- .1 distress;
- .2 urgency;
- .3 safety; and
- .4 routine.

The Secretariat was instructed to convey this decision to the ITU-R Working Party 8B which is responsible for preparation of issues related to Article 61 of the Radio Regulations to be considered by WRC-97.

4.29 The Sub-Committee considered COMSAR 1/18/3 (ICS) which questioned the use of the distress signals in distress relay messages relating to a person in distress. The Sub-Committee did not agree that the distress signals should be limited to cases involving ships and aircraft but suggested that detailed guidance concerning the use of distress, urgency and safety signals is needed to assist mariners involved with such cases. Members were invited to submit comments and proposals on this matter to COMSAR 2 for consideration.

4.30 The Sub-Committee also considered COMSAR 1/4/1 (Denmark) and noted that action taken in paragraph 4.1 of this section completely satisfied the recommended actions proposed in this document.

4.31 The delegation of the United Kingdom informed the Sub-Committee that GMDSS incidents received at MRCC Falmouth, United Kingdom, in 1995 show a continued increase in false alerts. 997 GMDSS alerts were received, 959 of which proved to be false alerts (96%). This shows a 10.9% increase on 1994 false alerts. False alerts increased by:

MF DSC	50%
Inmarsat-C	11.8%
EPIRBs	3%

This highlighted the need to clarify procedures for relay of distress alerts by ships and to enhance procedures to avoid false distress alerts. Members were invited to submit comments to COMSAR 2 relating to measures to reduce the proliferation of false alerts and to suggest actions to apply domestic regulation to impose penalties for misuse of GMDSS equipment.

Servicing and testing of 406 EPIRBs

4.32 The Sub-Committee considered COMSAR 1/4/3 (Australia) concerning periodic testing of 406 MHz satellite EPIRBs. It was agreed that alternate procedures were in use that met the basic objective of this proposal.

4.33 The Sub-Committee agreed that 406 MHz satellite EPIRBs should be tested with regard to all aspects of operational efficiency with particular emphasis on frequency stability, signal strength and coding. The test may be conducted on board the ship or at an approved testing/servicing station at least once every

year. In cases where testing is not carried out in this manner, the EPIRB should undergo full servicing at an approved servicing station every two years or, at intervals as determined by the Administration.

4.34 The Sub-Committee was of the opinion that this should be a maintenance and servicing requirement in the SOLAS Convention, possibly supported by guidelines, which could be developed by the Sub-Committee. The Committee was invited to authorize the Sub-Committee to prepare suitable amendments to SOLAS regulation IV/15.

4.35 The Sub-Committee noted COMSAR 1/INF.9 (Norway) describing an instrument to assist Radio Surveyors in testing GMDSS installations. The device will measure and record information on the majority of GMDSS installations including the identification and technical parameters of the radio devices.*

4.36 The Sub-Committee considered COM 40/WP.2/Add.1, annex 1, concerning guidance for shore-based maintenance. No contributions were received concerning this item. The Sub-Committee agreed that the guidance should be a draft new Assembly resolution and invited Members to submit comments and proposals on this matter to COMSAR 2 for consideration.

Other matters

4.37 The Sub-Committee noted COMSAR 1/INF.2 (Denmark) concerning the use of a scanning facility to meet the ships general communication watch requirements. It was pointed out that Denmark has approved the use of a separate dedicated scanning facility to maintain watches for non-distress DSC channels, in accordance with the following criteria:

- .1 the scanning facilities fulfil the IMO Performance Standards for DSC scanning receivers (resolution A.806(19) refers);
- .2 only non-distress DSC calling frequencies are included in the scanning;
- .3 the number of frequencies scanned in the sequence is limited to a maximum of six; and
- .4 the scanning process is initiated automatically as soon as the handset is placed on its hook.

4.38 Norway (COMSAR 1/7/6) proposed to change the format of distress message for Inmarsat-C to include date, time, group and number of persons at risk. The Sub-Committee did not agree that there was an operational requirement to change the distress alert format to include these items and believed that its decisions taken in response to COMSAR 1/3/1 (see paragraph 4.6) met the objective to have current position information in the distress alert. Inmarsat also pointed out that during distress incidents the standard procedure should include a distress message following the alert message to provide such additional information to the RCC. Unfortunately, this procedure is not followed in the majority of cases and particularly those involving a false distress alert.

5 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)

Operational and technical co-ordination provisions of MSI services

5.1 The Sub-Committee noted that in accordance with the amendment procedure, prescribed in Annex 2 of resolution A.706(17) on the World-Wide Navigational Warning Service, MSC 65 (MSC 65/25,

* Additional information can be obtained from Radio Inspection Services of Telenor (phone: +47-227-77519, fax: +47-222-01136) (Norway).

paragraphs 7.7 and 7.9) had adopted amendments prepared by COM 40, which are due to enter into force on 1 January 1997, and circulated them to Member Governments by MSC/Circ.685.

5.2 The Sub-Committee concurred with a proposal by the International Hydrographic Organization (IHO) (COMSAR 1/5/1) that information providers must monitor the broadcasts they originate and prepared amendments to resolution A.706(17), as amended by MSC/Circ.685.

5.3 The Committee is invited to adopt, in accordance with the amendment procedure prescribed in Annex 2 of resolution A.706(17), the proposed amendments, given in annex 5. The Sub-Committee also requested that the Committee invite IHO and the Secretariat to amend their publications and documents to reflect the proposed amendments.

5.4 The Sub-Committee concurred with the proposal by the Chairman of the IMO NAVTEX Co-ordinating Panel that NAVAREA Co-ordinators should take responsibility for the co-ordination of preliminary discussions between other Member States seeking to establish NAVTEX services and neighbouring Administrations within their area prior to formal application, in order to encourage the cost sharing of expensive coastal radio assets and to minimize the duplication of services and to avoid mutual interference between stations. This is included in new paragraph 6.2.1.16, given in annex 5.

5.5 With respect to COMSAR 1/5/3 (France), the Sub-Committee agreed that it is necessary that messages concerning search and rescue operations only be accepted by a NAVAREA co-ordinator for broadcast if they have been received from an authorized search and rescue authority in accordance with the provisions of paragraph 4.2.1.3.7 of resolution A.706(17). The Sub-Committee prepared COMSAR/Circ.3 on relations between NAVAREA Co-ordinators and RCCs and instructed the Secretariat to bring it to the attention of Member Governments. The Committee was invited to endorse this action.

5.6 IHO (COMSAR 1/5) informed the Sub-Committee that, following the request of COM 40 (COM 40/11, paragraph 4.23) to review the promulgation to mariners of the information contained in the GMDSS Master Plan and, in particular, the means for improving the dissemination to and receipt by ships of such information, the IHO Commission on Promulgation of Radionavigational Warnings (IHO CPRNW) reviewed the matter at its meeting in Athens, Greece from 26 to 28 September 1995, and noted that the IMO GMDSS Master Plan and the IMO GMDSS Handbook are accurate and detailed and therefore useful for National Hydrographic Offices and Telecommunications Authorities who have to issue and keep up to date official nautical publications. However, both IMO publications are large and cumbersome, not routinely updated and cannot be considered suitable as a Mariner Users Guide.

5.7 The Sub-Committee, concurring with the opinion of the CPRNW that MSI communications and related information contained in the GMDSS Master Plan and in the GMDSS Handbook is most appropriately provided to ships in the official LISTS OF RADIO SIGNALS published by National Hydrographic Offices or Telecommunication Authorities and kept up to date on a routine basis by Notices to Mariners, agreed that these publications should be accepted for carriage to meet the requirements of SOLAS regulation V/20.

5.8 Taking into account COMSAR 1/INF.6 (IHO and WMO), the Sub-Committee prepared COMSAR/Circ.4 on the Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI Manual) and instructed the Secretariat to bring it to the attention of Governments. The Committee was invited to endorse this action.

5.9 In view of the work being done to standardize distress alert formats (COMSAR 1/9/8) and to develop amendment procedures for the MSI Manual, IHO and WMO recommended the amendments to the MSI Manual which have been approved by the Sub-Committee as an interim correction to the document but that action on final approval of the manual as an IMO publication, should await completion of the work on the

Standardization of Distress Alert formats. The Sub-Committee invited the Committee to include review of the MSI Manual in the Sub-Committee's work programme with a target completion date of 1998.

5.10 The IHO observer advised the Sub-Committee that there had been changes to the List of NAVAREA Co-ordinators (COM/Circ.123) and the Sub-Committee prepared COMSAR/Circ.5 revising COM/Circ.123 and instructed the Secretariat to bring it to the attention of Governments. The Committee is invited to endorse this action.

5.11 The Sub-Committee noted that:

- .1 COM 40 again postponed taking a decision on the delimitation of the sub-areas between Bahrain and Qatar for the promulgation of MSI in the Persian Gulf and invited Bahrain and Qatar to seek an informal compromise agreement on that issue. If no agreement can be reached, Bahrain and Qatar were invited, pending final settlement between them, either to accept overlapping service areas or to ensure that their NAVTEX broadcasts provide complete coverage of the area concerned and to inform the Secretariat accordingly; and
- .2 as instructed by COM 40 (COM 40/22, paragraph 5.5), the Secretariat had brought the outcome of COM 40 on this matter to the attention of the Governments of Bahrain and Qatar.

5.12 The Government of Bahrain, in its response (COMSAR 1/5/2), confirmed that the State of Bahrain will continue NAVTEX broadcasts covering the whole area in question so as to ensure the safety of shipping. The delegation of Bahrain made the Statement, given in annex

International SafetyNET service

5.13 The Sub-Committee recalled that COM 40 had prepared COM/Circ.122 on selection of more than one fixed area in the Inmarsat-C system and instructed the Secretariat to circulate it to Member Governments. MSC 65 (MSC 65/25, paragraph 7.27) had endorsed this action.

5.14 The Sub-Committee noted the present status of MSI broadcasts in the International SafetyNET service, given in annex 1 of GMDSS/Circ.6. The Chairman of the International SafetyNET Co-ordinating Panel provided new and revised information which had been received since GMDSS/Circ.6 had been finalized. These amendments are as follows:

- .1 Pakistan commenced broadcast of navigational warnings via SafetyNET on 31 January 1996;
- .2 Brazil began operational testing of SafetyNET broadcasts;
- .3 India expects to commence SafetyNET broadcasts of navigational warnings in March 1996; and
- .4 South Africa expects to commence SafetyNET broadcasts of all MSI in April 1996.

The Sub-Committee instructed the Secretariat to take this into account when preparing GMDSS/Circ.7.

5.15 Concern was expressed by Argentina, supported by others, over the cost to the NAVAREA Co-ordinator of SafetyNET broadcasts. The Sub-Committee recommended minimizing such costs through:

- .1 the use of standardized message text and format (COMSAR/Circ.4);

- .2 elimination of warnings carried on NAVTEX unless they were of a nature which might cause a ship to alter its course substantially; and
- .3 strict observance of the guidance on broadcast of SAR information.

5.16 MSC/Circ.584, paragraph 5 requests Inmarsat to urge their Inmarsat-C CES operators to make favourable arrangements for SafetyNET broadcasts of MSI traffic from countries lacking Inmarsat-C CES facilities. On the basis of this recommendation, the Sub-Committee appealed to Administrations, in particular those not operating CESs to make the necessary arrangements with telecommunication service providers, to carry SafetyNET information to CESs in order not to adversely affect the appropriate transmission of MSI for economical reasons.

NAVTEX Co-ordinating Panel report

5.17 The Chairman of the Co-ordinating Panel:

- .1 expressed concern over the very slow implementation of the International NAVTEX service. There have been no applications for new stations in the past twelve months. Member States are encouraged to speed up their programmes prior to the final GMDSS implementation date of February 1999;
- .2 noted that there is a need for co-ordination by the NAVAREA Co-ordinator of preliminary discussions between initiating Administrations and their neighbours to minimize duplication of resources and mutual interference and observed that there will be serious shortage of B1 character in Asian Region (NAVAREA XI) in the near future. Although IMO GMDSS Master Plan has not indicated this phenomenon so far, the research conducted by Japan for the third meeting of the IHO Commission on Promulgation of Radio Navigational Warnings shows that 16 NAVTEX stations have been operational and a further 16 stations are planned or under trial. This means that B1 characters have to be used twice in the same region;
- .3 stated that the NAVTEX Co-ordinating Panel will approve the use of the B2 subject indicator group characters V, W, X & Y for special purposes, and advised Member States of the procedures for their allocation;
- .4 reiterated the importance of monitoring NAVTEX and SafetyNET broadcasts by originating authorities (annex 5); and
- .5 expressed concern that the Panel has received reports that B3B4 characters 00 are being used for purposes other than distress. This practice puts mariners lives at risk and is in contravention of the NAVTEX Manual and the SOLAS Convention. Messages specified B3B4 character 00 are always printed on every receiver, therefore, this prefix should only be used for distress alert relays.

6 IMPLEMENTATION OF GMDSS REQUIREMENTS IN RESPECT OF EXISTING FISHING VESSELS

6.1 The Sub-Committee noted that the Committee had approved MSC/Circ.682 on implementation of the GMDSS on board all ships for circulation to Member States. The MSC circular urges all Member Governments to assist in enhancing the safety of all ships at sea by encouraging all ships not subject to the 1974 SOLAS Convention or the 1993 Torremolinos Protocol to the 1977 Safety of Fishing Vessels Convention to be fitted for the GMDSS as soon as possible.

6.2 The Sub-Committee, noting that no documents have been submitted under this agenda item since the thirty-ninth session of the COM Sub-Committee considered whether this item should be deleted from the Sub-Committee's work programme but, noting that MSC/Circ.682 referred to implementation of the GMDSS on board all ships and that further consideration needs to be given to a number of problems regarding the "future implementation and use of the GMDSS by non-SOLAS convention ships" and to MSC/Circ.469 - Guidelines for the participation of non-Convention ships in the GMDSS, invited the Committee to consider replacing this item in its work programme with this broader subject with a target completion date of 1998.

6.3 Members were invited to consider both from a radiocommunication and SAR point of view the future application of the GMDSS to non-SOLAS convention ships and to submit comments and proposals thereon to COMSAR 2.

7 EMERGENCY RADIOCOMMUNICATIONS: FALSE ALERTS AND INTERFERENCE

7.1 In accordance with the NAV Sub-Committee's request, the Sub-Committee considered (NAV 41/23, annex 14) the draft MSC circular on Special signals for use by ships under attack from pirates or armed robberies and supported it in general. The Sub-Committee was not completely satisfied with measures to avoid inadvertent activations contained in paragraph 7 of the draft circular. The following change to paragraph 7 was suggested "to avoid false alarms, a positive activation of an access code known only to ships officers should be required to permit the Inmarsat-C SES to generate the alert message transmission. This could be activated by a programmed card or manually activated by pressing the code number on a numeric key pad".

7.2 Nevertheless, the Sub-Committee was of the opinion that the draft MSC circular, so amended (COMSAR 1/WP.1/Add.1, annex 5), should be further considered at COMSAR 2. Members were invited to submit comments and proposals on this matter to COMSAR 2 for consideration.

7.3 The Secretariat was instructed to bring the above paragraphs 7.1 and 7.2 to NAV for information.

7.4 The Sub-Committee considered COMSAR 1/7/1 (Sweden) proposing a draft new resolution to make all GMDSS installed equipment meet current performance standards by 1 February 1999. The delegation of Sweden indicated that they would prepare a preliminary draft Assembly resolution for consideration at COMSAR 2.

7.5 The Sub-Committee noted COMSAR 1/INF.7 (Portugal), COMSAR 1/INF.14 and COMSAR 1/INF.15 (Norway), pointing out that serious concern continues with the large percentage of false alerts with DSC and Inmarsat-C equipment. It was anticipated that, as more 406 MHz EPIRBs are installed, the number of false alerts would reduce and impact to SAR forces from them would lessen. This situation has not yet been evident. It was also noted that in alerting systems like the Inmarsat-A where a direct communication results from the call, false alarms seem to be less of a problem. This emphasizes the need for follow-on communications especially from DSC and Inmarsat-C systems.

7.6 The Chairman of the SAR Working Group, Mr. U. Hallberg (Sweden) noted with concern that distress alerts are creating a serious problem for the RCCs. This problem decreases the RCC staff confidence in the GMDSS.

7.7 The Sub-Committee considered COMSAR 1/7 (United States) and COMSAR 1/7/5 (IEC) relating to use of electronic light bulbs on board SOLAS ships.

7.8 It was noted that bulbs may produce harmful interference to radio equipment if the level of conducted spurious emissions exceeds the values of present relevant EMC standards (52MB)

7.9 Therefore, the Sub-Committee was of the opinion that all relevant equipment should be required to fulfil the requirements laid down in resolution A.813(19) on general requirements for electromagnetic compatibility (EMC) for all electrical and electronic ship's equipment.

7.10 The United States was of the opinion that as the bulb, described in COMSAR 1/7, produces conducted emissions exceeding 52 ~~dB~~ ^{µV}, they should not be permitted to be used on board ships.

7.11 The Sub-Committee, noting that false alerts and interference is a problem that will continue for many years to come, invited the Committee to retain this item as a continuous item in its work programme.

7.12 The Sub-Committee instructed the Secretariat to bring paragraphs 7.7 to 7.9 to the attention of the DE Sub-Committee for information.

8 SHIP IDENTIFICATION

406 MHz EPIRB

8.1 The Sub-Committee considered COMSAR 1/8 (COSPAS-SARSAT) explaining the availability of supporting information from the registration database on a 24-hour basis. Information including the MMSI and additional information relevant to the ship is available on a 24-hour basis from the 406 MHz EPIRB registration database. It was noted that in some cases, registration of this information has been made mandatory nationally.

8.2 The Sub-Committee considered COMSAR 1/8/2 (Russian Federation). The delegation of the Russian Federation proposed that two coding protocols seemed to be appropriate for the GMDSS. Other delegations also supported retention of the two options, i.e. MMSI and serialized coding protocols. There was also some support for retaining the coding with the radio call sign provided that additional data relevant to the rescue authorities was available from the database. Several delegations supported the retention of all options listed in resolution A.810(19). Although the use of serialized protocol was permitted in the GMDSS, the Sub-Committee decided to keep the MMSI as the preferred method to avoid confusion by SAR authorities and prepared the draft amendments to resolution A.810(19), given in annex 7, which allow the use of all three coding methods after 1 February 1999.

8.3 The Committee was invited to adopt the proposed draft amendments in accordance with operative paragraph 6 of resolution A.810(19) and to delete this item from the Sub-Committee's work programme.

Ship Station Identification (SSI) numbers for DSC and SES

8.4 The Sub-Committee noted that COM 40 had agreed that:

- .1 Inmarsat should be permitted to use the system code together with a system to retrieve additional information for use by RCCs; and
- .2 in order to provide flexibility in the means available to make additional numbers available, it is no longer valid to require the ship's telephone number to be related to the ship's MMSI. Liaison statements on the above matters have been prepared and addressed to the appropriate ITU-R Study Groups. MSC 65 (MSC 65/25, paragraphs 7.22 and 7.23) had endorsed these actions.

8.5 The Sub-Committee, taking into account paragraph 8.4 and noting that no documents relating to SSI numbers for DSC and SES have been submitted for consideration at this session, was of the opinion that the work on this matter is completed. The Committee was invited to delete this sub-item from the Sub-

Committee's work programme.

VTs and Identification Transponders

8.6 The Sub-Committee considered COMSAR 1/8/1 (United Kingdom) on channel loading for DSC on VHF channel 70 and noted that automatic ship identification systems using DSC techniques could operate on channel 70 while still leaving capacity for public correspondence calling and without affecting distress alerts. It was also noted that future automatic ship identification systems and VTS might be designed for faster updating of position and would exceed the channel 70 loading limits and would therefore need special VHF channels.

8.7 It was reiterated that existing VHF GMDSS equipment complying with the IMO performance standards cannot, without modification, be used with automatic ship identification systems and that separate dedicated equipment would give greater flexibility in the design of the systems. However, it was pointed out that equipment combining GMDSS and VTS purposes could enhance the implementation of VTS, but a combined equipment cannot employ automatic identification or position updating when used for other purposes and cannot also use the existing manual equipment.

8.8 The Sub-Committee, noting that further work was necessary on this item, invited the Committee to extend its target completion date in the Sub-Committee's work programme to 1998.

9 MATTERS CONCERNING SEARCH AND RESCUE, INCLUDING THOSE RELATED TO THE 1979 SAR CONFERENCE AND THE INTRODUCTION OF THE GMDSS

Harmonization of aeronautical and maritime search and rescue procedures

9.1 The Sub-Committee noted the two resolutions adopted by the 1995 International Lifeboat Federation (ILF) Conference (MSC 65/13/2) referred to it by the Committee which:

- .1 invited the Secretary-General of IMO to inquire about the status of implementation of measures to protect coastal rescue craft as provided for under the Second Geneva Convention and the International Code of Signals and urged IMO to put in place any necessary measure to minimize any additional risk to the crews of coastal rescue craft; and
- .2 urged ILF Members to assist the work of IMO in promoting the effective implementation of the GMDSS.

9.2 The Sub-Committee welcomed the offer of assistance by ILF Members to the Organization in promoting the effective implementation of the GMDSS and recalled in this regard that MSC/Circ.682 approved by the Committee at its sixty-fifth session had urged all Governments to assist in enhancing the safety of all ships and their crews at sea by encouraging all ships not subject to the 1974 SOLAS Convention or the 1993 Torremolinos Protocol to the 1977 Safety of Fishing Vessels Convention to be fitted for the GMDSS as soon as possible.

9.3 With regard to the protection of rescue craft during armed conflict, the Sub-Committee agreed that as States and not the Organization are Parties to the Geneva Convention, it is up to the Parties to take, as far as possible, all necessary legal and administrative measures to protect their coastal rescue craft in accordance with the Second Geneva Convention and Protocol 1 to the Convention. The Sub-Committee recalled that at its thirtieth session (COM 30/11, paragraph 10.2.3), the COM Sub-Committee had agreed to a proposal by the ILF on radiotelephony and radar identification of rescue craft during armed conflict. The Sub-Committee agreed that the principle of the protection of rescue craft during armed conflict should be included in the Joint

ICAO/IMO SAR Manual and in the MERSAR Manual.

9.4 The Sub-Committee agreed with a proposal by Australia (COMSAR 1/9/7) to amend the SAR Convention to include a requirement that in addition to the present colour coding for droppable survival stores containers, bands of suitable pictograms in retro-reflective material be used to identify the contents of the containers. For existing containers, retro-reflective materials are to be used to improve their visibility. New containers should be made in highly visible colours.

9.5 The Sub-Committee noted that Australia had offered to submit a proposal to COMSAR 2 on suitable pictograms and invited interested Members to send their contributions to the Australian Co-ordinator *. The Sub-Committee also noted that at the third session of the Joint ICAO/IMO Working Group on Harmonization of Aeronautical and Maritime Search and Rescue (JWG 3), Italy offered to contribute the aeronautical views on the pictograms.

Report of the second session of the Joint ICAO/IMO Working Group on Harmonization of Aeronautical and Maritime Search and Rescue

9.6 The Sub-Committee noted the report of the second session of the ICAO/IMO Working Group on Harmonization of Aeronautical and Maritime Search and Rescue (JWG) (COMSAR 1/9/2) and the comments thereon by the SAR Working Group at LSR 26.

Report of the third session of the Joint ICAO/IMO Working Group on Harmonization of Aeronautical and Maritime Search and Rescue

9.7 The Sub-Committee noted (COMSAR 1/9/9) the report of the third session of the Joint ICAO/IMO Working Group on Harmonization of Aeronautical and Maritime Search and Rescue (JWG) held in Goteborg (Sweden) from 16 to 20 October 1995 in general and, in particular:

- .1 noted that as a means to follow up decisions taken so that its future work would be more readily identified, the Joint Working Group (JWG) had instructed the Secretariat to prepare a list of recommendations made at previous meetings for internal use by the JWG, listing agenda items and actions taken by the JWG;
- .2 noted that even though a joint manual was presented to the JWG, the United States had offered to prepare a new joint manual in three parts, and that the provisional Joint ICAO/IMO SAR Manual which was prepared by the JWG would be available for review by JWG 4 and COMSAR2;
- .3 noted that the JWG had recommended that ICAO Annex 2 be amended to include a

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requirement for non-participating aircraft to keep a minimum height of 2,000 ft above a scene of distress;

- .4 noted that the JWG had established a correspondence group with the task of listing ten items that could be easily identified for use in joint ICAO/IMO SAR statistics;
- .5 noted that the JWG had supported the resolution adopted at the Atlantic Ocean Conference in Lisbon that an international SAR fund be developed with the intention of enhancing the global SAR plan;
- .6 noted that hand-held radios operating on the SAR auxiliary frequency 123.1 MHz and GPS receivers are now available on the market;
- .7 noted the recommendation of the JWG that a possible alternative to the procedure of keeping an inadvertently activated EPIRB on until authorities are informed, be explored and noted the view expressed that this could lead to an increased work load for air traffic services; and
- .8 agreed to retain "SAR Training" in its work programme until work on preparation of the Joint ICAO/IMO SAR Manual is completed (see paragraph 11).

9.8 The Sub-Committee was informed that the fourth meeting of the JWG has been tentatively scheduled from 14 to 18 October 1996. The Sub-Committee noted that the meetings of the Joint Working Group are open to all Member Governments, who may attend as observers.

9.9 Norway (COMSAR 1/INF.12), commenting on the report of the SAR Working Group, given in COMSAR 1/9/2, did not support the phasing-out of satellite processing of 121.5 MHz alert signals early in the next century. Norway was of the opinion that it would be an inappropriate way of reducing false distress alerts and would be to the detriment of people in distress.

9.10 The Sub-Committee was of the opinion that 121.5 MHz beacons are one of the causes of frequent false distress alerts, they adversely affect the GMDSS and RCCs and the use of 121.5 MHz should eventually be restricted to voice and homing applications. COSPAS-SARSAT was invited to take this opinion into account in considering whether to continue processing 121.5 MHz signals, and to provide early notification of any decision to discontinue such processing. ICAO was invited to inform COSPAS-SARSAT of ICAO's opinion on this matter.

Plan for the provision of maritime SAR services including procedures for routing distress information in the GMDSS

9.11 The United States (COMSAR 1/9), in reviewing the status of the global SAR plan, proposed inclusion of minimum standards for RCCs in the IMO SAR Manual and suggested that only RCCs which have been assessed by the States concerned as meeting the minimum standards should be included in the IMO SAR Plan. The United States recommended that IMO assist States developing their SAR services, by identifying what they need to do in order to implement effective SAR co-ordination and by providing them with information and training materials. In COMSAR 1/9/1, the United States highlighted some operational issues which are vital to effective SAR operation and proposed the inclusion of a number of items in the Sub-Committee's work programme to address the issues raised.

9.12 The Sub-Committee concurred with the proposal by the United States (COMSAR 1/9/5) on the need to improve the efficiency of SAR operations by reducing the workload on RCCs through streamlining the procedures and improvements to shore-based infrastructure and prepared the draft Assembly resolution on Guidance to Administrations on development of shore-based SAR telecommunication infrastructure, given in

annex 8, which the Committee was invited to approve for submission to the twentieth Assembly for adoption.

9.13 The Sub-Committee agreed to refer the proposal for IMO to initiate a dialogue with ICAO concerning the potential shared use of ICAO's Aeronautical Telecommunications Network (ATN) to JWG 4 for consideration and advice.

9.14 The Sub-Committee considered COMSAR 1/9/6 (United States) and, noting that the proposals therein relate to ship reporting matters, agreed to refer the document to the NAV Sub-Committee for consideration and action as appropriate.

9.15 The Sub-Committee also requested the Secretary-General to invite the attention of ICAO to the usefulness of reporting systems in SAR operations and their relation to the provisions of ICAO, Annex 12, paragraph 4.1.3.

9.16 The Sub-Committee agreed with a proposal by Australia (COMSAR 1/9/8) that there is a need for standardization of distress alert formats for passing messages between RCCs and national SAR authorities in another country. Using COMSAR 1/9/8 as a basis, the Sub-Committee prepared the draft preliminary model formats for distress alerts, to transfer information via Inmarsat-C, Inmarsat-E, Digital Selective Calling (DSC) and COSPAS-SARSAT systems, given in annexes 2 to 6 of COMSAR 1/WP.7, for inclusion in the Joint IMO/ICAO SAR Manual. The Sub-Committee noted that the JWG 3 also approved the proposed standard formats.

9.17 The United Kingdom (COMSAR 1/9/10) invited the Sub-Committee's attention to the duplication of SAR efforts which occurs when the same distress alert is received and is acted upon by several RCCs each unaware that others are also involved. The situation is common when the alert does not contain the ship's position or is from a position for which there is no known responsible RCC. To reduce waste, the United Kingdom proposed an improvement in information flow between SAR authorities by adopting a system to enable an RCC receiving a distress alert to broadcast details to other RCCs, particularly those likely to have received a distress alert from the same ship via another communication system.

9.18 The Sub-Committee agreed with the United Kingdom proposal that the Inmarsat FleetNET service could provide such a broadcast facility and requested the United Kingdom to develop the idea further and submit a proposal to COMSAR 2 on procedures for the use of the Inmarsat-C services for communications between RCCs. The delegations of the Netherlands and Norway and the observer from Inmarsat offered to contribute to the submission and to submit the names and addresses of who to contact to the United Kingdom delegation.

Revision of the IMOSAR and MERSAR Manuals

9.19 The Sub-Committee did not agree with a proposal by ICS and IFSMA (COMSAR 1/9/12), to prepare guidance to masters for inclusion in the revised section 3 of the MERSAR Manual on the procedure to be followed by ships receiving a distress alert and failing to proceed to the assistance of persons in distress when it is unreasonable to expect them to do so. However, the Sub-Committee agreed that there is a need to prepare some guidance for masters on the subject in accordance with resolution 8 of the 1995 SOLAS Conference. Members were invited to consider the matter and submit comments and proposals thereon for consideration at COMSAR 2.

Other SAR matters

9.20 The Sub-Committee noted information provided by Norway (COMSAR 1/INF.10) on guidelines it is preparing for co-operation between ships and the Norwegian SAR service in case of accidents at sea and, as an example, COMSAR 1/INF.11 on the Guidelines for co-operation between the Norwegian SAR service and

oil companies in case of accidents and hazardous situations in the petroleum activity within the Norwegian Search and Rescue Region (SRR) was presented. Members were invited to consider the guidelines when circulated and to submit comments and proposals thereon with the intention to standardize the format for jointly developed SAR plans.

10 COMPLETION OF THE INTERNATIONAL SAR PLAN

10.1 The Sub-Committee noted information provided by the Secretariat (COMSAR 1/9/3) on the successful outcome of the Mediterranean Sea seminar and workshop held by the Organization in Toulon (France) from 4 to 8 September 1995 in which a draft proposed provisional SAR plan for the Mediterranean Sea was prepared for further review by the countries in the region. The delegations of Malta and Turkey reserved their position with respect to the report of the Toulon seminar and workshop.

10.2 The delegation of Tunisia stated that the delimitation of areas of responsibility for search and rescue can only be undertaken with the participation of all the States concerned in the area and that the resolution adopted by the seminar and workshop which is annexed to COMSAR 1/9/3 cannot be considered as having any antecedence in delimiting those areas of responsibility (the full statement of Tunisia is given at annex 9).

10.3 The Sub-Committee also noted information provided by the Secretariat (COMSAR 1/9/4) on the technical co-operation programme it has implemented in response to resolution 8 of the 1979 SAR Conference and noted with appreciation the activities which have been completed and others that are planned in the near future to complete the global SAR plan.

10.4 The Sub-Committee considered a joint submission by IFSMA, ICS and ICFTU (COMSAR 1/9/11) in which they invited the Sub-Committee to:

- .1 review the current situation in the Black Sea region and consider the actions now required to provide and co-ordinate efficient SAR services in the region;
- .2 seek early determination on the Black Sea SRRs and the development of formal agreements for co-operation in maritime SAR;
- .3 encourage the closest practicable co-ordination between maritime and aeronautical SAR services and between neighbouring States; and
- .4 recommend that a regional Conference on Maritime SAR should be held as soon as possible in order to agree a provisional maritime SAR Plan for the whole of the Black Sea region without further delay.

10.5 The delegation of Turkey offered to initiate discussion with other countries bordering the Black Sea and if the discussions are fruitful to host a Conference of Black Sea countries to adopt a provisional SAR plan for the area. In the opinion of Turkey the Black Sea region should be given priority over the Mediterranean Sea in the development and adoption of a provisional maritime SAR plan because it believed that a number of matters still need to be resolved in the Mediterranean region.

10.6 The Sub-Committee urged the Secretary-General to continue his efforts to secure funds for regional SAR meetings and for SAR training.

10.7 The Sub-Committee, noting that work on the International SAR Plan is an ongoing matter, invited the Committee to include this item in its work programme, as a "Continuous" item.

11 RESCUE OPERATIONS TO BE CARRIED OUT INSIDE WRECKS

The Sub-Committee recalled that the agenda item was added to its work programme as a result of an accident in which some crew members were trapped inside a capsized tug. There was general agreement that little guidance is available on rescue operations inside capsized wrecks. Members were invited to consider the matter and submit proposals thereon for consideration at COMSAR 2. The Committee was requested to extend the target completion date of this item in the Sub-Committee's work programme to 1997.

12 SAR TRAINING

12.1 The Sub-Committee noted that JWG 3 in considering SAR personnel, staffing and training (COMSAR 1/9/9, paragraph 8.1), had requested for copies of the IMO model courses on SAR training and being informed that the Group intended to revise the courses on the basis of its work on combining the ICAOSAR and IMOSAR Manuals, invited the Committee to delete this item from its work programme and to add to the sub-item "harmonization of aeronautical and maritime search and rescue procedures" the words "including, SAR training matters".

12.2 The delegation of Ghana supported by the delegation of Liberia appealed for assistance from countries with developed SAR organizations for the training of all categories of their SAR personnel.

12.3 The Sub-Committee, noting that resolution 8 of the 1979 SAR Conference on promotion of technical assistance, urges States to promote, in consultation with and with the assistance of the Organization, support for States requesting technical assistance for training of personnel necessary for SAR and for the provision of the equipment and facilities necessary for SAR, urged Member Governments which are in a position to assist, to do so in consultation with the Organization.

13 RO-RO FERRY SAFETY

Co-ordination of the MERSAR Manual and the Guide to Helicopter/Ship Operations

13.1 The Sub-Committee noted that the Committee at its sixty-fifth session in considering ro-ro ferry safety instructed the Sub-Committee to:

- .1 give consideration, in co-operation with the NAV Sub-Committee, to recommending an upper limit on the number of passengers that ro-ro passenger ships are permitted to carry, taking into account the capacity of rescue services in the ship's area of operation (MSC 65/25, paragraph 4.34);
- .2 consider the co-ordination of the MERSAR Manual and the guide to Helicopter/Ship Operations (MSC 65/25, paragraph 4.40.6); and
- .3 consider the future work on SAR matters and the SAR Convention (MSC 65/25, paragraph 4.40.7).

The Sub-Committee agreed to consider the items in paragraphs 13.1.2 and 13.1.3 and invited Members to submit comments and proposals thereon for consideration at COMSAR

13.2 The Sub-Committee noted that, with regard to paragraph 13.1.1, NAV 41 (NAV 41/23, paragraphs 22.5 and 22.6) had agreed that there was no navigational reason to limit the number of passengers on ro-ro passenger ships and that this was a matter for consideration by the COMSAR Sub-Committee. The opinion was also expressed that the number of merchant ships in the area in which SAR operation involving a ro-ro passenger ship casualty took place was as important as the availability of dedicated SAR resources.

13.3 The Sub-Committee was of the opinion that the number of passengers on ro-ro passenger ships is adequately regulated by the SOLAS Convention and should not depend on the capacity of the rescue services. The Sub-Committee observed that the response of a rescue service to an incident is greatly affected by circumstances which can neither be foreseen nor controlled.

13.4 The Sub-Committee further considered the proposed amendments to the SAR Convention annexed to the report of the Intersessional Working Group (COMSAR 1/13/1) and prepared the preliminary draft text, given in annex 7 to COMSAR 1/WP.7, for further consideration at COMSAR 2.

13.5 In considering the proposal by the United States (COMSAR 1/13) for a comprehensive review of the 1979 SAR Convention, the Sub-Committee noted that the same proposal has been sent by the United States to the Committee. The Sub-Committee agreed that some of the proposals by the United States might remove the difficulties presently encountered by Governments in ratifying the Convention and expressed its support for the views expressed. The Sub-Committee invited the Committee to approve a comprehensive review of the SAR Convention and, noting that the work cannot be done during a normal Sub-Committee meeting, requested the Committee to approve an intersessional meeting of the SAR Working Group for this purpose.

13.6 The proposal by Germany (COMSAR 1/13/2) was supported by the Sub-Committee for inclusion in the draft amendments.

14 PERFORMANCE STANDARDS FOR SHIPBORNE RADIO EQUIPMENT

Review of GMDSS equipment performance

14.1 The Sub-Committee recalled that in order to avoid false distress alerts while still keeping a simple procedure for generating alerts in a distress situation, taking into account the human element, a standardized procedure for transmission of distress alerts and messages for GMDSS equipment was prepared by COM 40 and included by the Secretariat, in accordance with the Sub-Committee's instructions, in the draft Assembly resolutions submitted to MSC 65 for approval and submission to the nineteenth Assembly for adoption. A list of resolutions relating to performance standards for GMDSS equipment adopted by the nineteenth Assembly is given in COMSAR 1/2/2.

14.2 It was noted that a new operative paragraph was included in all resolutions concerning performance standards for GMDSS equipment adopted by the nineteenth Assembly requesting the Maritime Safety Committee to keep the resolutions under review and to adopt amendments thereto, as necessary.

14.3 It was also noted that by resolution A.825(19) - Procedure for adoption and amendment of performance standards for radio and navigational equipment, the nineteenth Assembly decided that the function of adopting performance standards for radio and navigational equipment, as well as amendments thereto, shall be performed by the MSC on behalf of the Organization.

14.4 The Sub-Committee agreed to the opinion expressed by the Technical Working Group (COMSAR 1/14, paragraph 2.6) that there is a need to prepare performance standards for power supply arrangements.

14.5 Considering COMSAR 1/14/2, COMSAR 1/14/3 and COMSAR 1/14/4 (Norway and Sweden) regarding performance standards for shipborne radio reserve sources of energy, the Sub-Committee decided, due to lack of time, to give further consideration to this matter at COMSAR 2.

14.6 The Sub-Committee noted that:

- .1 NAV 41 (NAV 41/23, paragraph 6.62) had considered the proposal by Germany (NAV 41/6/18) on a common structure for performance standards for navigational

equipment. There was support in principle for this approach and the concept of issuing performance standards as a ring binder publication. However, the NAV Sub -Committee concluded that there was a need for further consideration of the detail to ensure alignment with other requirements found in SOLAS, IEC and ISO standards; and

- .2 NAV 41 (NAV 41/23, paragraph 6.63) was of the opinion that the common structure had to be approved by itself rather than issued as an Assembly resolution. This would provide flexibility for the future when changing requirements allowing the basis of the common structure to be used as guidelines and invited the COMSAR Sub-Committee to also consider adopting the same common structure for its performance standards.

14.7 The Sub-Committee considered the use of a general, harmonized format of performance standards and was of the opinion that the format of the present standards is already harmonized as far as is practical. The Sub-Committee also was of the opinion that too strict rules for the format would limit the necessary flexibility in the contents of the performance standards.

14.8 The Sub-Committee was of the opinion that some of the performance standards need updating. Members were invited to submit comments and proposals on this matter to COMSAR 2 for consideration.

14.9 The Sub-Committee considered COMSAR 1/14/1 (United States) and COMSAR 1/INF.4 (Inmarsat) regarding the use of Inmarsat-M terminals on board SOLAS ships and concurred with the opinion that Inmarsat-M SESs at the present do not fulfil the requirements of the GMDSS, as currently the terminals do not provide direct-printing communications; the priority arrangement for distress calls via the Inmarsat -M system ends at the CES and, in common with other automatic systems, there is no priority call arrangement from shore-to-ship.

14.10 The Sub-Committee was of the opinion that the term "Direct-Printing" should not be taken to only mean telex, but that general data communications could be regarded as equivalent.

14.11 It was pointed out that the priority routing all the way to the relevant RCC should be assured, and national arrangements may have to be taken into account.

14.12 The Sub-Committee invited Inmarsat to develop suitable means for introducing data transmission capability for distress communications in Inmarsat-M SESs and to supply further information on the arrangements in the Inmarsat-M system for priority calls.

14.13 As there is a need for preparing performance standards for Inmarsat-M terminals for general communications not being part of the GMDSS, Members were invited to submit comments and proposals thereon to COMSAR 2 for consideration.

Ro-ro ferry safety - Performance standards for VHF/UHF portable radiotelephones

14.14 The Sub-Committee noted that MSC 65 (MSC 65/25, paragraph 4.40.5) had agreed that the COMSAR Sub-Committee should consider performance standards for VHF/UHF portable radiotelephones.

14.15 The Sub-Committee noted that, if both VHF and UHF portable radiotelephone apparatus are used for on-scene communications, there may be situations where units in the rescue operations cannot communicate with each other. Therefore, the Sub-Committee was of the opinion that such VHF and UHF apparatus should not be combined into the same equipment, as the equipment would be unduly complicated and the introduction of more than one on-scene frequency would lead to confusion for inexperienced persons. The Sub-Committee strongly recommended that only one frequency should be used for on -scene communications. However, when UHF equipment is being used for on-board communications, it should be clearly

distinguishable from the GMDSS VHF portable radiotelephone apparatus (e.g. by use of different colours).

14.16 The Sub-Committee also noted that the 1995 SOLAS Conference, among others, had adopted the amendments to chapter IV as new regulation 7.5:

"Every passenger ship shall be provided with means for two-way on-scene radiocommunications for search and rescue purposes using the aeronautical frequencies 121.5 MHz and 123.1 MHz from the position from which the ship is normally navigated."

14.17 With regard to these amendments, the Sub-Committee was of the opinion that performance standards for equipment using frequencies 121.5 MHz and 123.1 MHz should be developed. Members were invited to submit comments and proposals on this matter to COMSAR 2 for consideration.

14.18 It was pointed out that, if portable on-scene communication equipment operating on the aeronautical distress frequencies 121.5 MHz and 123.1 MHz is being used, it should be frequently checked, especially with regard to battery status because this equipment will not be in daily use as on-board communication equipment.

Technical Working Group

14.19 The Sub-Committee instructed the Technical Working Group to consider a number of documents submitted under agenda items 7, 8.3, 15, 16, 24 and all documents submitted under agenda item 14. The outcome of the Working Group's discussions related to these documents and not included in this report will be circulated under the appropriate agenda item to COMSAR 2. Members were invited to consider the report of the Group, when circulated, and to submit comments and proposals thereon for consideration by the Sub-Committee.

15 RADIOCOMMUNICATION ITU-R STUDY GROUP 8 MATTERS

15.1 The Sub-Committee noted that no documents had been submitted under this agenda item for consideration. However, in considering other submissions, the Sub-Committee made a number of decisions concerning ITU-R Study Group 8 which are reflected in paragraphs 4.1, 4.6, 4.8, 4.13, 4.14 and 4.28 of this report.

15.2 Members were invited to submit comments and proposals relating to ITU-R Study Group 8 matters to COMSAR 2 for consideration.

16 DEVELOPMENT OF MEASURES COMPLEMENTARY TO THE INF CODE

16.1 The Sub-Committee recalled that COM 40 (COM 40/22, paragraphs 16.3 and 16.4) had agreed to consider technically feasible solutions for devices which would facilitate the location and detection of an INF carrying ship or its cargo which was floating or had sunk and gave preliminary consideration to the devices which might be used and the information it would require to develop performance standards for such locating and detection devices for further consideration at COMSAR 1.

16.2 The Sub-Committee noted that the nineteenth Assembly had adopted resolution A.790(19) on Review of the Code for the Safe Carriage of Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes in Flasks on Board Ships.

16.3 The Sub-Committee considered the problem described in COM 40/16 (Solomon Islands) regarding the location of containers with radioactive contents and recognized that while a floating container could easily be located after sending out signals using existing radio systems, such systems could not be used for location

if a container has sunk in water. For location under water, due to power supply limitations, only on acoustic means would seem to be practicable and the transmission of such locating signals could be based on transponder principles.

16.4 The Sub-Committee was of the opinion that the ship carrying INF materials and perhaps each separate container of INF, could be continuously position -updated, and set off an alarm when containers are lost overboard. Individual containers, which are lost overboard, could be located if provided with an acoustic transponder or other suitable means.

16.5 The United Kingdom informed the Sub-Committee that at least one ship for carrying INF materials, known to them, has a facility to transmit an acoustic signal to enable the ship to be located in depths up to 6000 m, should it sink. The United Kingdom also informed the Sub-Committee, when steaming normally, the ship periodically reports its position via the Inmarsat system to the operator.

16.6 The Sub-Committee instructed the Secretariat to bring paragraphs 16.3 and 16.4 to the attention of the Special Consultative Meeting on Entities Involved in the Carriage of Material subject to the INF Code, which will be held from 4 to 6 March 1996 at the Headquarters of IMO, for information and to NAV 42 for consideration.

16.7 The Committee was invited to note the Sub-Committee's opinion regarding location of INF containers, given in paragraphs 16.3 and 16.4, and that these paragraphs have also been brought to the attention of NAV 42, for consideration.

16.8 The Sub-Committee was of the opinion that work on this matter has been completed and invited the Committee to delete this item from the Sub-Committee's work programme.

17 TRANSMISSION OF UPDATING INFORMATION FOR ELECTRONIC NAVIGATIONAL CHARTS

17.1 The Sub-Committee noted that the 19th Assembly had adopted resolution A.817(19) on Performance standards for ECDIS.

17.2 The Sub-Committee also noted that Recommendation ITU-R M.826, on transmission of information for updating ECDIS, recommends the use of a forward error detecting and correcting code for information transmitted in the Inmarsat system.

17.3 The Sub-Committee, noting that NAV 41 had been informed of the results of trials of ECDIS (NAV 41/INF.13) which had been held over a certain period of time in order to prove the efficiency of the updating methods and the feasibility of automatic updating ECDIS on board ships, using the IHO S -57 transfer standard and radiocommunication channels, had proven successful, was of the opinion that the work on this matter has been completed and invited the Committee to delete this item from the Sub -Committee's work programme.

18 ITU WORLD RADIOCOMMUNICATION CONFERENCE MATTERS

18.1 The Sub-Committee noted a report, submitted by the Secretariat (COMSAR 1/18), on the outcome of the World Radiocommunication Conference (WRC-95) which was held in Geneva from 23 October to 17 November 1995 and its Resolutions and Recommendations relating to the Sub -Committee's work. The Sub-Committee's comments on various matters are given in the following paragraphs.

18.2 With regard to Resolution GT PLEN-3 [718] - Agenda for the 1997 WRC, the Sub-Committee noted with satisfaction those matters related to the maritime mobile service and maritime mobile satellite service

which had been included in the agenda under item 1.6, and that these reflected the position of the Organization as given in its submission to WRC-95.

18.3 The Sub-Committee reiterated its position to have the provisions of the Radio Regulations concerning the maritime mobile services considered by WRC-97 as a matter of urgency, taking into account in particular that the date for full implementation of the GMDSS (1 February 1999) will be prior to WRC-99, and the importance of all the matters under item 1.6 of the WRC-97 agenda. The Committee was requested to approve this position and instruct the Secretariat to communicate it to the ITU before the ITU Council meeting beginning 19 June 1996.

18.4 The ITU observer informed the Sub-Committee of the work of the ITU Conference Preparatory Meeting (CPM) which will include in its report to WRC-97 a chapter on the maritime and aeronautical services.

18.5 With regard to resolution GT PLEN-4 [719] - Urgent studies required in preparation for WRC -97, the Sub-Committee noted that maritime related matters have been included under the list of items identified for urgent study in preparation for WRC-97. Attention was also drawn to Resolution COM 5-9[715] which should complement the list of the WRC-95 decisions that COMSAR 1/18 had identified as being of interest to the Organization.

18.6 The Sub-Committee noted that, in Resolution GT PLEN-5 [720], the review of the channel arrangements in the HF bands for the maritime mobile service, taking into account the use of new digital technology, had been included in the provisional agenda for WRC-99.

18.7 With regard to Resolution COM 4-3 [711], the Sub-Committee noted that further studies concerning the application of Article S19 (identification of stations) was needed and that the Organization should contribute to this work. Members were invited to consider this matter and to submit comments and proposals thereon to COMSAR 2.

18.8 The Sub-Committee noted Resolution COM 4-7 [339] on co-ordination of NAVTEX services and was of the opinion that the NAVTEX co-ordination panel could undertake the task of co-ordination of the NAVTEX services. The Sub-Committee further agreed that the response to the ITU should record the need to establish an effective means of information exchange on the use of the NAVTEX frequencies and any adjacent frequencies which would have to be considered in the co-ordination of additional or amended NAVTEX services. The Sub-Committee noted that the possibility of interference with aeronautical beacons may require the continued involvement of the ITU.

18.9 Resolution COM 4-8 [713] - Consideration of certain operational matters concerning the radio regulations in the aeronautical and maritime mobile services, instructs the Secretary -General of the ITU to arrange for appropriate studies within ITU, in consultation with ICAO and IMO, in order to identify provisions in the Radio Regulations, particularly with respect to chapters SVIII and SIX, which specify operational procedures affecting only aeronautical mobile and maritime mobile services. The Sub-Committee considered the implications of this Resolution by which WRC-95, among other things, proposed to study the legal foundations of the ITU, IMO and ICAO. The intention was to gain a better understanding of how regulatory provisions are established within the three organisations and the consequent scope of their application. Following discussion, the Sub-Committee agreed that while there were undoubtedly a number of legal and practical problems involved in effecting an eventual transfer, there could be some advantages if handled properly. The treatment of commercial procedures and those ships not covered by present IMO regulations would present a considerable challenge.

18.10 The Sub-Committee agreed to the Chairman's proposal that he would conduct an informal study with the Chairman of ITU-R Working Party 8B, and other experts to study the practical aspects and to determine

what would be the critical questions to address, noting that the Radio Regulations cover all types of radiocommunications for all ships, not only for distress and safety but also commercial communications. The Chairman undertook to prepare a paper for consideration at COMSAR 2 on the outcome of this work.

18.11 The Sub-Committee noted that Recommendation COM 4-A [34] on principles for the allocation of frequency bands had been developed bearing in mind the reservations expressed at MSC 65 concerning the ITU Voluntary Group of Experts proposals to reduce, by merging, the number of radiocommunication services. The effect of the Recommendation is that safety factors should be considered when merger proposals are studied and that the Organization should be consulted when maritime matters are involved.

18.12 All Administrations are invited to note the WRC-97 agenda, submit comments to COMSAR 2 and advise their telecommunications administrations of specific proposals for the Conference and the CPM-97, which will be held in May 1997.

Maintenance of watch on VHF channel 16 after 1 February 1999

18.13 The Sub-Committee considered COMSAR 1/18/1 and COMSAR 1/18/2 (France), COMSAR 1/4/2 and COMSAR 1/7/2 (Australia) concerning various aspects of maintaining an audio watch on VHF Channel 16 beyond the GMDSS implementation date of 1 February 1999. The majority opinion in the Sub-Committee was that it would not be practical to discontinue the audio watch from that date because of the vast numbers of smaller ships, not subject to SOLAS requirements, which could not be brought within the GMDSS by 1999. It was recognized that 90% of ships are not subject to IMO Conventions and that 90% of SAR incidents involved non-Convention ships, mainly close to the shore.

18.14 Although the Sub-Committee recognized that Channel 16 working as at present would have to be retained for some time after 1999 there was strong agreement that there would eventually have to be one system, the GMDSS. Some delegations expressed concern that relaxation of the ending of Channel 16 watchkeeping would discourage the fitting of GMDSS equipment on non-Convention ships; as a consequence, Convention ships would also have to maintain Channel 16 watchkeeping, otherwise there would be no common system between Convention and non-Convention ships.

18.15 The Sub-Committee agreed that the proposal by Australia in COMSAR 1/4/2 to limit the exemption on fitting the VHF DSC equipment available under SOLAS chapter IV would assist in reducing the problems in extending Channel 16 watchkeeping beyond 1999. The proposed cut-off date of 2001 was not accepted, being too long for some delegations and too short for others. The Sub-Committee agreed to give further consideration to this proposal at COMSAR 2 when the state of progress on GMDSS equipment installations on non-Convention ships would be clearer.

18.16 The Sub-Committee noted that MSC/Circ.469 provides guidance on fitting GMDSS equipment to non-Convention ships and that it may be necessary to return to this issue at COMSAR 2.

Interference to HF distress and safety communications

18.17 The Sub-Committee, when considering COMSAR 1/7/2 (Australia), again expressed concern at the harmful interference being caused on HF simplex distress and safety frequencies in the GMDSS.

18.18 For the simplex R/T distress and safety frequencies 12290 kHz and 16240 kHz the problem arises because these may also be used legitimately as the ship transmits frequencies of duplex radiotelephone channels 1221 and 1621. The Sub-Committee agreed that the continued use of the frequencies 12290 kHz and 16420kHz for other than distress and safety purposes could seriously affect GMDSS communications.

18.19 The Sub-Committee, having reviewed COM/Circ.119, prepared COMSAR/Circ.6 containing a

recommendation on prevention of harmful interference on the 8, 12 and 16 MHz GMDSS distress and safety simplex frequencies and instructed the Secretariat to bring it, as a matter of urgency, to the attention of Member Governments, ITU telecommunication Administrations and mariners. The Committee was invited to endorse this action.

19 REVIEW OF RESOLUTIONS A.534(13) ON THE CODE OF SAFETY FOR SPECIAL PURPOSE SHIPS AND A.686(17) ON THE CODE ON ALARMS AND INDICATORS, AS AMENDED

Code of Safety for special purpose ships (SPS)

19.1 The Sub-Committee noted that DE 39 had endorsed the COM Sub-Committee's suggested amendments to chapters 8 and 9 of the SPS Code and its proposals for the SPS safety certificate to be amended and supplemented by a record of equipment similar to that appearing in the SOLAS Convention and had prepared an MSC circular containing the amendments for approval by MSC 66 (DE 39/31, ~~20~~ annex

Code on alarms and indicators

19.2 The Sub-Committee noted that DE 38 had considered COM 40/18 (Germany) and, taking into account the COM Sub-Committee's comments, prepared a draft Assembly resolution on revised Code on alarms and indicators which was adopted by the nineteenth Assembly as resolution A.830(19).

19.3 The Sub-Committee, noting that work on this item was completed, invited the Committee to delete it from the Sub-Committee's work programme.

20 SATELLITE SERVICES

COSPAS-SARSAT SERVICES

20.1 The Sub-Committee noted information (COMSAR 1/20/2) on the status of the COSPAS -SARSAT programme, in particular:

- .1 29 LUTs are in operation in 17 countries. 4 more are under test and additional LUTs are planned in Algeria, Argentina, Australia, Brazil, Iran and Saudi Arabia. 14 MCCs are in operation and 4 are being tested;
- .2 more than 100,000 406 MHz beacons are in service and the number is expected to double by the year 2000;
- .3 during 1994 COSPAS-SARSAT provided assistance in 297 SAR events which resulted in the rescue of 998 persons;
- .4 non distress activations of 406 MHz beacons continues to be a matter of concern but the recent introduction of a two-step activation process seems to be reducing the number of inadvertent activations;
- .5 the number of unregistered 406 MHz beacons continues to be a problem;
- .6 the initial test results of the 406 MHz GEOSAR system which is under development and evaluation will be considered by COSPAS-SARSAT in 1996;
- .7 specifications for 406 MHz beacons and LUTs have been amended to provide for opt ionally

encoded position information in the transmitted message. Details of the amendments have been sent to IMO, in accordance with resolution A.810(19); and

- .8 a COSPAS-SARSAT seminar will be held in London from 23 to 25 October 1996 to provide information on the many developments taking place in the system.

INMARSAT SERVICES

Inmarsat service activation of SESs

20.2 Inmarsat (COMSAR 1/20) informed the Sub-Committee that:

- .1 it is important that national administrations and maritime authorities ensure that SES operators under their flag understand that, beginning 1 April 1996, it is incumbent upon them to test the operation of distress alerting and calling capabilities on their Inmarsat-B, C and M SES installations; they will not be tested automatically or by prearrangement during service activation. This testing of distress alerting and calling capabilities will be available at no charge; and
- .2 it is important that national administrations, maritime authorities, licensing authorities and routing organizations (RO) understand the limitations of the Inmarsat service provider concept, planned for implementation in September 1996, and ensure that applications for service activation of SESs which may at any time be needed to provide distress and safety communications be processed within the Accounting Authority framework. Inmarsat will check application forms and reject the service provider option except where the use of the SES is for commercial purposes only.

20.3 The Sub-Committee expressed concern at the discontinuation of commissioning tests which will no longer be carried out automatically or by prearrangement during service activation for Inmarsat-B, C and M SES installations to ensure that SESs for the GMDSS have been installed and are operating properly. This will place an extra burden on maritime Administrations since they would still have to ensure that the SES is properly tested, especially with regard to distress and safety, before issuing the relevant safety certificate.

20.4 The Sub-Committee was of the opinion that, with respect to ships which voluntarily fit SESs, if the equipment has not been tested, it will be uncertain whether it will work satisfactorily should it be necessary for the ship to conduct distress or safety communications. There is also a danger that if the tests are carried out by an unskilled person, a false distress alert could be transmitted.

20.5 With regard to the service provider concept, the Sub-Committee was of the opinion that this concept should not be applied to maritime SESs regardless of whether they are subject to GMDSS requirements or not and that a special application form should be used by Inmarsat for maritime SESs in order to ensure that the service provider option is rejected.

Barring of SESs

20.6 The Sub-Committee considered COMSAR 1/20/1 (Inmarsat) advising Administrations of the barring procedures employed by Inmarsat when ships do not pay their bills. The Sub-Committee noted that:

- .1 there will continue to be cases where debts are not paid on time whereby SESs will be subject to barring;
- .2 the barring of SESs can adversely affect ship's radio licenses, the availability of communications for distress and safety purposes and GMDSS certification; and

- .3 the assistance of Administrations in ensuring payment of bills, in accordance with Recommendation ITU-T D.90, will help to ensure that ships are not barred from using their SESs and thus deprived of safety communications and GMDSS certification.

20.7 The Sub-Committee expressed grave concern at:

- .1 the barring procedures affecting the ships' distress and safety communications, taking into account the Inmarsat explanation of the Inmarsat observer that distress priority 3 calls could still be transmitted by the barred SES, but that follow up distress and safety communications in both shore-to-ship and ship-to-shore directions would not immediately be possible; and
- .2 the possibility of barring ships while at sea, thus seriously impeding their ability to conduct distress and safety communications in accordance with the requirement of SOLAS chapter IV.

20.8 With regard to the barring procedures, the Sub-Committee was very firmly of the opinion that Inmarsat should ensure that the master of the ship, the operator of the SES and the ship's flag Administration must be notified at least thirty days before the actual barring takes place in order for appropriate measures to be taken by the shipowner to prevent the ship's safety certificate being rendered invalid whereby the ship would be prevented from sailing from its next port.

20.9 The ICFTU, noting that Inmarsat would have recourse to lien that once barred the ship would be unseaworthy and that seafarers' lives could be put at risk for reasons beyond their own control, expressed special concern at barring at sea.

20.10 The Secretariat was instructed to bring paragraphs 20.2 to 20.9 to the urgent attention of Inmarsat for appropriate action.

Inmarsat-M telephony trials

20.11 The Sub-Committee noted a report on Inmarsat-M telephony trials (COMSAR 1/INF.4) on the possible use of Inmarsat-M in the GMDSS which generally concluded that, based on the subjective results of an Inmarsat-M maritime telephony trials programme and on the results of a separate series of objective field measurements of Inmarsat-M service field strengths at high Northern latitudes, for latitudes up to 75 ° North the call success rate and intelligibility of the Inmarsat-M telephony service is very similar to that currently being provided within the service area at satellite elevation angles above 20°.

ITU Recommendation E.164 Country Code "870" to Inmarsat

20.12 The Sub-Committee noted a liaison statement from ITU-T Study Group 2 (COMSAR 1/INF.5) on assignment of Recommendation E.164 Country Code "870" to Inmarsat for Single Network Access Code (SNAC) operations which effectively would restrict direct dialling of ships fitted with Inmarsat-A SESs beyond the year 2015.

Institutional changes in Inmarsat

20.13 The Sub-Committee noted with satisfaction the concern expressed by the Committee (MSC 65/25), paragraphs 7.34 to 7.42 and annex 24) at the possible impact and consequences of the proposed institutional changes being contemplated by Inmarsat and the action taken by the Committee to ensure that the interests of the Organization with regard to future maritime distress, safety and general communication services are upheld.

20.14 The Sub-Committee noted information provided by Inmarsat relating to GMDSS communication services operated via Inmarsat systems for the period from 1 October 1994 to 30 September 1995 and in particular that:

- .1 at the end of October 1995, there were almost 18000 Inmarsat-A and 13000 Inmarsat -C terminals fitted in ships. In addition, 487 Inmarsat-B terminals and 136 Inmarsat -E EPIRBs were in use at sea;
- .2 network operation availability ranged from 99.74% to 100% over the ocean regions, averaging 99.85%. Space segment availability was maintained at 100%, whilst the average availability of the network co-ordination stations was 99.99% for Inmarsat -A, 99.94% for Inmarsat-C and 99.98% for Inmarsat-B; and
- .3 the Inmarsat Distress Alert Quality Control System (DAQCS) maintains a database of all data available from Investigations of real and false distress alerts. This shows that, for the 9 months of 1995 covered by the report and not counting authorised tests, there were 51 genuine and 429 improper distress priority uses of Inmarsat systems (preliminary figures). Inmarsat continues to follow-up all uses of distress priority with the ship concerned, providing advice on how to avoid improper use of distress priority.

21 INTERNATIONAL CODE OF SIGNALS

21.1 The Sub-Committee, noting that no documents had been submitted on this item and that NAV 41 had deferred consideration of possible amendments to chapter XIV of the Code to NAV 42, invited Members to submit any comments and proposals directly to NAV 42.

21.2 The Sub-Committee, noting also that amendments to the International Code of Signals might require consideration at COMSAR 2, invited the Committee to retain this agenda item in the Sub-Committee's work programme until COMSAR 2, when if no submission has been received the Sub-Committee will recommend its deletion from the Sub-Committee's work programme.

22 REVIEW OF RESOLUTION A.703(17) ON TRAINING OF RADIO PERSONNEL IN THE GMDSS

22.1 The Sub-Committee recalled that STW 27 had noted the draft revised amendments to chapter IV of the STCW Convention and Parts A and B of the STCW Code, prepared by COM 40 (STW 27/3/32), and endorsed and amended the texts for inclusion in the draft amendments to the STCW Convention.

22.2 The Sub-Committee noted that, in respect of regulation I/4, paragraph 1.3, STW 27 had decided not to include as a reason, under control procedures for assessment of the ability of the seafarers of a ship, that "the ship has emitted false distress alerts which have not been followed by correct cancellation procedures". Such control provisions should be included in an appropriate part of resolution A.742(18) - Procedures for the control of operational requirements related to the safety of ships and pollution prevention.

22.3 The Sub-Committee noted that the World Radiocommunication Conference, 1995 (WRC-95), considering the simplification of the Radio Regulations, had clarified the application of the Restricted Operator's Certificate (ROC) by insertion of the following Note 1 to Table 1 in Article S47 to the Final Acts of WRC-95:

"Note 1: A restricted operator's certificate covers only the operation of GMDSS equipment required for GMDSS sea areas A1, and does not cover the operation of GMDSS A2/A3/A4 equipment fitted

on a ship over and above the basic A1 requirements, even if the ship is in a sea area A1. GMDSS sea areas A1, A2, A3 and A4 are identified in the International Convention for the Safety of Life at Sea, 1974, as amended."

22.4 The United States (COMSAR 1/22) proposed to outline alternatives for developing suitable training materials for voluntary use by operators of GMDSS equipment on board ships not subject to IMO Conventions. These materials may be developed separately for each individual GMDSS sub-system, and if generally made available to the boating public, could reduce the misuse of GMDSS sub-systems and could prepare such operators to use the GMDSS elements when they are in distress.

22.5 The Sub-Committee, concurring in principle with the United States proposal, was of the opinion that the proposed guidance should be included in a revision of MSC/Circ.469 as a recommendation on development of training materials for GMDSS operators on non-convention ships and, using the annex to COMSAR 1/22 as above, prepared for further consideration at COMSAR 2 the provisional draft MSC circular on participation of non-convention ships in the GMDSS, given in COMSAR 1/WP.5.

22.6 Members were invited to consider the provisional draft MSC circular and to submit comments and proposals thereon to enable the Sub-Committee to complete its consideration of the MSC circular at COMSAR 2. The Committee was invited to extend the target completion date of this item to 1997.

22.7 The Sub-Committee was informed by Mr. J. Shaw (United Kingdom and CEPT), Chairman of the Validation Group on GMDSS Model Training Courses, that:

- .1 at STW 27 (6-10 February 1995) the brief of the voluntary group of experts working on the model training course for the GMDSS General Operator's Certificate was extended to cover the production of comprehensive course notes for students;
- .2 the Norwegian Foreign Ministry provided NOK 200,000 to fund this work which has mainly been spent on the services of a GMDSS consultant. The Norwegian telecommunications operator TELENOR A/S also provided assistance by providing staff time and computer equipment. Thanks should also be extended to the assistance of Wray Castle College, United Kingdom in the preparation of the course notes;
- .3 the consultant's report was delivered in January 1996 and is now under review. The model course itself is essentially complete and is the standard format as required by the Organization;
- .4 some more work is needed on all course notes to bring in examples of distress and safety communications from outside the European area, and to expand on some of the technical aspects;
- .5 the remaining work will be carried out by the Group members and the remaining funds will be conserved so that the consultant can participate in the formal presentations of the course; and
- .6 the intention is to complete the additional work required by April so that formal evaluation can be carried out at STW 28 (16 to 20 September 1996).

22.8 The Sub-Committee noted the report of the Chairman of the Validation Group and expressed its appreciation for the assistance given by all concerned with preparation and validation of the model training courses.

23 STANDARD MARINE COMMUNICATION PHRASES

23.1 The Sub-Committee, noting that NAV 42 would consider the Standard Marine Communication Phrases (SMCP) prepared by its Correspondence Group, invited Members to consider the report of the Group when circulated to NAV 42 and to submit any comments and proposals directly to NAV 42.

23.2 The Sub-Committee invited the Committee to retain this item in its work programme, for the time being, so that it can consider those parts of the SMCP related to GMDSS radiocommunications and SAR and proposed a target completion date of 1997.

24 ROLE OF THE HUMAN ELEMENT IN MARITIME CASUALTIES

24.1 The Sub-Committee instructed all working groups and drafting groups, in the context of the human element, to take account of the Committee's instructions (MSC 65/25/Add.2, annex 29), in their work and to identify in their reports relevant matters where consideration of the human element takes place.

24.2 In this regard, the Sub-Committee considered and took account of the human element in the matters listed under agenda items 4, 7, 9, 12, 13, 14, 18, 22 and 24. The results of these considerations are reflected under corresponding sections of this report.

Guidelines for the on-board use and application of computers

24.3 The Sub-Committee noted COMSAR 1/24 (IEC) and DE 39/30/2 (IEC) and considered COMSAR 1/14, paragraph 2.8 (Technical Working Group), related to the general use of computers on board ships and agreed that distress and safety operating software should be required to be stored in non -corruptible memories and without the use of a switch to disconnect remote operating controls, as a software switch would be sensitive to virus infections and a hardware switch could easily be forgotten and left in the wrong position in a distress situation. It was also agreed that means should be provided to automatically monitor the operational software of the equipment at appropriate time intervals.

24.4 The Sub-Committee recommended the application of these requirements to the software used with all shipborne computer type equipment used for navigation and radiocommunications and was of the opinion that these requirements should also be applicable to other shipborne computer equipment.

24.5 The Sub-Committee instructed the Secretariat to bring paragraphs 24.3 and 24.4 to the attention of the DE, NAV and SLF Sub-Committees for information.

24.6 The Sub-Committee, noting that work on "Guidelines for the on-board use and application of computers" was completed, invited the Committee to delete this sub-item from the Sub -Committee's work programme and, as work on the "Role of the human element" was continuously under consideration by the Sub-Committee in all its work, to amend the target completion date to "continuous".

25 SAFETY OF PASSENGER SUBMERSIBLE CRAFT

25.1 The Sub-Committee recalled that COM 40 had agreed that passenger submersible craft when on the surface should:

- .1 if in autonomous operation, meet the appropriate requirements of SOLAS chapter IV for the Sea Area in which they operate; and
- .2 if accompanied by a supporting surface ship (non-autonomous operation), have intercommunication with the parent ship,

and that this opinion had been brought to the attention of the DE Sub-Committee.

25.2 The Sub-Committee was informed by the Secretariat that after a general discussion on the draft guidelines (DE 39/15 and Corr.1), DE 39 agreed that considerable progress has been made but, recognizing that there are still a number of outstanding issues requiring further work, re-established the correspondence group and instructed it to compile the final draft guidelines, taking into account proposals by experts, comments of DE 39 and the outcome of SLF 40 and the COMSAR Sub-Committee on this item.

25.3 The Sub-Committee considered the sections of the guidelines for the design, construction and operation of passenger submersible craft prepared by the correspondence group (DE 39/15) which related to communications and, noting that this matter would require special knowledge, invited the Technical Working Group in consultation with the Operational Working Group to give consideration to such passenger submersible craft communications.

25.4 Taking into account that COMSAR 2 is tentatively scheduled to be held from 27 to 31 January 1997 and DE 40 from 10 to 14 February 1997, the Sub-Committee invited Member Governments to have their experts on submersible craft communications consider the compiled text of the draft guidelines, when circulated to DE 40, and to submit comments and proposals thereon to COMSAR 2 for consideration in order to enable the Sub-Committee to provide advice to DE 40.

25.5 The Sub-Committee noted the opinion expressed by Finland (COMSAR 1/25/1), which is based on fairly extensive operational experience of submersible craft operating in its national waters, that the requirements for radio equipment on passenger submersible craft should be left to the discretion of the flag State. If in the future, passenger submersibles were to embark on international voyages, the matter would have to be reconsidered.

25.6 The Sub-Committee also noted that France (COMSAR 1/25) has for several years been in the process of preparing regulations applicable to civil submarines which are due to enter into force within the next few months. The French draft regulations relate to all civil submarines or submersible craft and, in the case of passenger submarines, incorporate regulations of a more mandatory nature.

25.7 The Committee was invited to extend the target completion date of this item to 1997.

26 REVIEW OF REPORTING REQUIREMENTS IN IMO INSTRUMENTS

26.1 The Sub-Committee noted that COM 40 (COM 40/22, paragraphs 19.3 to 19.5) had recalled that it requires reports:

- .1 in response to the questionnaire on casualties (COM/Circ.70/Rev.1);
- .2 on exemptions granted from the requirements of SOLAS chapter IV in accordance with SOLAS regulation IV/3.3; and
- .3 on shore-based facilities for the GMDSS, in accordance with SOLAS regulation IV/5.2 for inclusion in the GMDSS Master Plan.

COM 40 was of the opinion that all the reports referred to in paragraph 19.3 of COM 40/22 are essential and should continue to be required. The Committee was invited to note this opinion and to delete this item from the Sub-Committee's work programme.

26.2 The Sub-Committee also noted that LSR 26 had noted (LSR 26/20, paragraph 18.3.1), that

mandatory reports with regard to SAR are requested on established SAR organizations and alterations of importance thereto, in accordance with paragraph 2.1.2 of the 1979 SAR Convention and agreements concerning search and rescue regions in accordance with paragraph 2.1.4 of the 1979 SAR Convention and that this information is needed for the development of the international SAR Plan. LSR 26 agreed that these reports are essential for the purposes of implementation of the SAR Convention and for the conduct of port State control.

26.3 In accordance with the Committee's instructions, the Sub-Committee reviewed the opinions of COM 40 and LSR 26 on the basis of the recommendation of the FSI Sub-Committee (FSI 3/17, paragraph 3.14) that when reviewing reporting requirements the Sub-Committee should take into account the following criteria:

- .1 How has the collation of the information contributed to safety of life at sea or pollution prevention?
- .2 Is the information requirement out of date?
- .3 Is the information readily available to the provider without an undue administrative burden?
- .4 How is the information used by
 - IMO?
 - Flag State?
 - Port State?
 - Other interested bodies?
- .5 Is the information indexed and readily accessible?
- .6 Is there a consistent format for reporting?
- .7 What would happen if the information was not collected?

and that in the future the Sub-Committee should apply these criteria before proposing new reporting requirements.

26.4 The Sub-Committee, noting that with the exception of the questionnaire on casualties all the remaining reports are convention requirements, reaffirmed the opinions of COM 40 and LSR 26 that these mandatory reports were essential and should continue to be required.

26.5 With regard to replies to the questionnaire on casualties (COM/Circ.70/Rev.1), the opinion was expressed that the FSI Sub-Committee is responsible for evaluating casualty reports and any evidence of radiocommunication problems in these reports could, if necessary, be brought to the attention of the COMSAR Sub-Committee by the FSI Sub-Committee for action, as appropriate.

26.6 The Sub-Committee invited the FSI Sub-Committee to note that notification of aspects of casualties which demonstrate failure of, or problems with, the casualties GMDSS communications was needed and this may involve ships which are not necessarily serious casualties. If the FSI Sub-Committee could notify the Sub-Committee when such problems have occurred then replies to COM/Circ.70/Rev.1 would no longer be necessary.

26.7 With regard to the Committee's instructions (MSC 65/25, paragraph 19.3) to review the list of codes, recommendation, guidelines and other non-mandatory instruments annexed to MSC 65/19/1 so that it would, in future, contain information provided by maritime Administrations only on those instruments for which there is a need to record their status of implementation, the Sub-Committee noted that it is not responsible for

any non-mandatory instruments requiring reports or records of their status of implementation, nor is it or either the COM or LSR Sub-Committees mentioned in the list of Sub-Committees, given in the annex to MSC 65/19/1.

26.8 The Sub-Committee invited the Committee to delete this agenda item from its work programme as being completed.

27 WORK PROGRAMME

27.1 The Sub-Committee noted the Committee's instructions (MSC 65/22 /2, paragraph 11) that when considering its work programme it should:

- .1 first deal with high priority items and, if time permits, with low priority ones; and
- .2 in case of low priority items, when considering their postponement:
 - .2.1 check whether:
 - .2.1.1 adequate submissions have been received;
 - .2.1.2 there is sufficient general interest to keep the item on their work programme;
 - .2.1.3 the instructions received are clear enough; and
 - .2.1.4 adequate industry standards already exist;
 - .2.2 specify the benefit expected to be derived from the implementation of any requirements which may be developed;
 - .2.3 estimate the number of sessions needed to complete work on the item concerned; and
 - .2.4 report on the questions specified in subparagraphs .2.1 to .2.3 above to the Committee for its consideration and action as appropriate; and
- .3 inform the Committee(s) on items for which no submissions have been received for two consecutive sessions, which should, therefore, be deleted unless an adequate reasoning to retain the items in the work programme is provided by the Sub-Committee.

27.2 Taking into account the progress made during the session and the instructions of the Committee, the Sub-Committee reviewed and prepared the draft revised Work Programme, given in annex 11 for consideration and approval by the Committee.

28 ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 1997

In accordance with rule 16 of the Rules of Procedure of the Maritime Safety Committee, the Sub-Committee unanimously re-elected Mr. J. Rasmussen (Denmark), as Chairman and Mr. U. Hallberg (Sweden) as Vice-Chairman for 1997.

29 ANY OTHER BUSINESS

Recommendation ITU-T F.110 - Operational Provisions for the Maritime Mobile Service

29.1 The Sub-Committee considered the liaison statement from ITU-T Study Group 1 (COMSAR 1/29) and noted the attached revised Recommendation ITU-T F.110 - Operational Provisions for the Maritime Mobile Service.

29.2 The Sub-Committee noted that the revised Recommendation ITU-T F.110 is an effectively simplified version of Recommendation ITU-T F.110 which gives provisions for all aspects of operation of radiocommunication services via maritime mobile satellites and radio media of HF, MF, VHF and UHF.

29.3 The Sub-Committee also noted that Recommendation ITU-T F.110 constitutes a part of the Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services which, in accordance with Article 26 of the Radio Regulations, is required to be carried on board ships.

Regional satellite systems

29.4 The Sub-Committee recalled that COM 40 (COM 40/22, paragraph 7.11) had prepared a draft COM circular on Guidelines for use in evaluating regional mobile satellite systems and MSC 65 (MSC 65/25, paragraph 7.16) had approved it for circulation to Member Governments and SOLAS Contracting Governments, as COM/Circ.128.

29.5 The Sub-Committee noted the status report on the regional mobile satellite system of the United States (COMSAR 1/INF.3) where it is stated that the United States Regional System was designed to meet all requirements for satellite systems and associated coast earth stations forming part of the GMDSS. Its first satellite was launched into geostationary orbit on 7 April 1995. Initial check-out and service validations have been completed successfully. An at-sea test programme is being conducted to validate the requirements of COM/Circ.128 and other IMO requirements, and to determine coverage areas. When the at-sea test programme is complete, the results will be forwarded to the Sub-Committee.

Low-Earth Orbit satellite systems

29.6 The Sub-Committee also noted the information provided by the United States (COMSAR 1/INF.13) on various existing and planned Low-Earth Orbit (LEO) two-way data communication systems and their common characteristics relating to the safety of life at sea.

Date of the second session of the COMSAR Sub-Committee

29.7 The Sub-Committee noted that the second session of the COMSAR Sub-Committee has tentatively been scheduled to be held from 27 to 31 January 1997.

Statement by the delegation of Mexico

29.8 The Sub-Committee noted a statement by the delegation of Mexico, supported by the delegations of Brazil, Chile, Colombia, Cuba, Panama, Spain and Uruguay, in regard to delays which had been experienced in the availability of the COMSAR Sub-Committee's documents in Spanish. The delegation of France expressed the same concern. (The full statement of the delegation of Mexico is reproduced in annex 10).

Expressions of appreciation

29.9 The Sub-Committee expressed appreciation to:

- .1 the delegation of Norway for demonstrating equipment selected by Telenor AS for updating the Norwegian coast stations;

- .2 the delegation of the United States for providing a briefing on low-earth orbit (LEO) mobile satellite communication services which are being provided by Orbital Communications Corporation (Obcomm) followed by a reception.
- .3 Chalmers University of Technology (Sweden) for presenting a training programme for search and rescue exercises;
- .4 Captain Benjamin M. Chiswell III, who has attended the Sub-Committee as Head of the United States delegation to COM and COMSAR Sub-Committees for many years and wished him every future success and happiness;
- .5 Mr. Kevin A. Murphy (ICFTU) who has participated in meetings of the COM Sub-Committee since its first session and many other IMO committees and conferences and wished him a long and happy retirement; and
- .6 Captain J.L. Fear (Inmarsat) who has been participating in meetings of the COM Sub-Committee since 1976, first as a member of the United States delegation and then on behalf of Inmarsat and wished him a long and happy retirement.

30 ACTION REQUESTED OF THE COMMITTEE

30.1 The Committee, at its sixty-sixth session, is invited to:

- .1 urge Member Governments to examine GMDSS/Circ.7, provide the Secretariat with any necessary amendments and respond to MSC/Circ.684, as necessary (paragraph 3.2);
- .2 approve the draft MSC circular on Implementation of the GMDSS (paragraph 3.11 and annex 2);
- .3 endorse the Sub-Committee's action on developing recommended changes to Recommendation ITU-R M.541-5 and in bringing them to the attention of ITU-R Working Party 8B for consideration (paragraph 4.1 and annex 3);
- .4 endorse the Sub-Committee's action in issuing COMSAR/Circ.1 on Relays of distress alerts by digital selective calling (paragraph 4.4);
- .5 instruct the Sub-Committee to develop a draft new SOLAS regulation on the need for automatic position-updating for GMDSS radiocommunication equipment and, if necessary, consequential amendments to existing regulation IV/13 (paragraph 4.10);
- .6 instruct NAV 42 to consider the above .5 when developing requirements for carriage of electronic position-fixing equipment (paragraph 4.11);
- .7 endorse the Sub-Committee's action in issuing COMSAR/Circ.2 on Procedure for responding to an MF (2187.5 kHz) DSC distress alert in a sea area A2 (paragraph 4.15);
- .8 approve the draft MSC circular on Guidance to Administrations on improving capability of shore authorities to contact ships during situations involving distress or SAR operations (paragraph 4.16 and annex 4);
- .9 include maritime mobile service identities (MMSIs) in the proposed International Ship

Information Database (ISID) (paragraph 4.20);

- .10 instruct the Sub-Committee to prepare suitable amendments to SOLAS regulation IV/15 with regard to a maintenance and servicing requirement for satellite EPIRBs (paragraph 4.34);
- .11 adopt the proposed draft amendments to resolution A.706(17) in accordance with the amendment procedure prescribed in Annex 2 to resolution A.706(17) (paragraph 5.3 and annex 5);
- .12 invite IHO and instruct the Secretariat to amend relevant publications and documents to reflect the amendments referred to in .11, when adopted (paragraph 5.3);
- .13 endorse the Sub-Committee's action in issuing COMSAR/Circ.3 on Relations between NAVAREA Co-ordinators and RCCs (paragraph 5.5);
- .14 endorse the Sub-Committee's action in issuing COMSAR/Circ.4 on the Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI) (paragraph 5.8);
- .15 endorse the Sub-Committee's action in issuing COMSAR/Circ.5 - List of NAVAREA Co-ordinators (paragraph 5.10);
- .16 adopt the draft amendments to resolution A.810(19) in accordance with operative paragraph 6 thereof (paragraph 8.3 and annex 7);
- .17 approve the draft Assembly resolution on Guidance to Administrations on development of a shore-based SAR telecommunication infrastructure, for submission to the twentieth Assembly for adoption (paragraph 9.12 and annex 8);
- .18 approve a comprehensive review of the 1979 SAR Convention and, noting that the work cannot be concluded during a normal Sub-Committee's session, to approve an ad hoc intersessional meeting of the SAR Working Group (paragraph 11.5);
- .19 note the Sub-Committee's opinion (paragraphs 16.3 and 16.4), regarding location of INF containers, which has also been brought to the attention of NAV 42 for consideration (paragraph 16.7);
- .20 approve the IMO position that the provisions of the Radio Regulations concerning the maritime mobile services should be considered by WRC-97 as a matter of urgency, taking into account, in particular, that GMDSS's full implementation date (1 February 1999) will be prior to WRC-99 and instruct the Secretariat to bring this position to the June 1996 ITU Council meeting (paragraph 18.3);
- .21 endorse the Sub-Committee's action in issuing COMSAR/Circ.6 containing a Recommendation on prevention of harmful interference on the 8, 12 and 16 MHz GMDSS distress and safety simplex frequencies (paragraph 18.19); and
- .22 approve the report in general.

30.2 In reviewing the Sub-Committee's work programme, the Committee is invited to consider the revised work programme proposed by the Sub-Committee (annex 11) and, in particular, to:

- .1 include an item on "Revision of resolution A.764(18) - Establishment, updating and retrieval

- of the information contained in the registration databases of satellite EPIRBs" with a target completion date of 1998 (paragraph 4.18);
- .2 include an item on "Review of the Joint IMO/IHO/WMO MSI Manual" with a target completion date of 1998 (paragraph 5.9);
 - .3 broaden the item on "Implementation of GMDSS requirements for existing fishing vessels" by replacing it with "Future implementation and use of the GMDSS by non -Convention ships" with a target completion date of 1998 (paragraph 6.2);
 - .4 delete the item "SAR training" and add to the sub-item "harmonization of aeronautical and maritime SAR procedures" the words ", including SAR training matters" (paragraph 7.11);
 - .5 delete the following sub-items and items, as work on them has been completed:
 - .5.1 "406 MHz EPIRBs" (paragraph 8.3);
 - .5.2 "Ship station identification (SSI) numbers for DSC and SES" (paragraph 8.5);
 - .5.3 "Development of measures complementary to the INF Code" (paragraph 16.8);
 - .5.4 "Transmission of updated information for electronic navigational charts" (paragraph 17.3);
 - .5.5 "Review of resolutions A.534(13) - Code of safety for special purpose ships and A.686(17) - Code on alarms and indicators" (paragraph 19.3);
 - .5.6 "Guidelines for the on-board use and application of computers" (paragraph 24.6); and
 - .5.7 "Review of reporting requirements in IMO instruments" (paragraph 26.8);
 - .6 extend, as indicated below, the target completion date of the following work programme items, which could not be finalized at COMSAR 1, taking into account the involvement of other sub-committees, where applicable:
 - .6.1 "Review of the locating functions in the GMDSS" - ~~1997~~ (paragraph 4.26);
 - .6.2 "Emergency radiocommunications: false alerts and interference" ~~Continuous~~ (paragraph 7.11);
 - .6.3 "VTS and identification transponders" - ~~1998~~ (paragraph 8.8); (in co-operation with NAV)
 - .6.4 "Completion of the International SAR Plan" - ~~Continuous~~ (paragraph 10.7);
 - .6.5 "Rescue operations to be carried out inside wrecks" - ~~1997~~ (section 11);
 - .6.6 "International Code of Signals" - ~~1997~~ (paragraph 21.2);
 - .6.7 "Review of resolution A.703(17) - Training of radio personnel in the GMDSS"; - ~~H-1997~~ (paragraph 22.6);

- .6.8 "IMO standard marine communication phrases" - ~~1997~~ [**1997**] (paragraph 23.2);
(co-ordinated by NAV)
- .6.9 "Role of the human element in maritime casualties" - [**Continuous**]
(paragraph 24.6); and
- .6.10 "Safety of passenger submersible craft" - ~~1997~~ [**1997**] (paragraph 25.7); and
- .7 approve the proposed revised work programme of the Sub-Committee with the revised target completion dates and other editorial changes (paragraph 27.2 and annex 11).

ANNEX 1

AGENDA OF THE FIRST SESSION INCLUDING A LIST OF DOCUMENTS

1 Adoption of the agenda

COMSAR 1/1	- Secretariat
COMSAR 1/1/1	Secretariat

2 Decisions of other IMO bodies

COMSAR 1/2	- Secretariat
COMSAR 1/2/1	Secretariat
COMSAR 1/2/2	Secretariat
COMSAR 1/2/3	Secretariat

3 Global Maritime Distress and Safety System (GMDSS)

COMSAR 1/3	- United States
COMSAR 1/3/1	United States
COMSAR 1/3/2`	- United States
COMSAR 1/3/3	United States
COMSAR 1/3/4	Belgium
COMSAR 1/3/5	ICS
COMSAR 1/3/6	ICS
COMSAR 1/3/7	United Kingdom
COMSAR 1/3/8	Secretariat
COMSAR 1/INF.8	- Portugal
COMSAR 1/WP.6/Rev.1	- Drafting Group

4 Work Consequential to the 1988 GMDSS Conference

COMSAR 1/4	- Denmark
COMSAR 1/4/1	Denmark
COMSAR 1/4/2	Australia
COMSAR 1/4/3	Australia
COMSAR 1/4/4	Norway
COMSAR 1/INF.2	- Denmark
COMSAR 1/INF.9	- Norway
COMSAR 1/WP.1	- Working Group
COMSAR 1/WP.1/Add.1	- Working Group

5 Promulgation of Maritime Safety Information (MSI)

COMSAR 1/5	- IHO
COMSAR 1/5/1	IHO
COMSAR 1/5/2	Secretariat
COMSAR 1/5/3	France
COMSAR 1/INF.6	- IHO and WMO
COMSAR 1/WP.2	- Drafting Group
COMSAR 1/WP.2/Add.1	- Drafting Group

6 Implementation of GMDSS requirements in respect of existing fishing vessels

No documents submitted

COMSAR 1/WP.5 - Drafting Group

7 Emergency radiocommunications: False alerts and interference

COMSAR 1/7 - United States
COMSAR 1/7/1 Sweden
COMSAR 1/7/2 Australia
COMSAR 1/7/3 Australia
COMSAR 1/7/4 United Kingdom
COMSAR 1/7/5 IEC
COMSAR 1/7/6 Norway
COMSAR 1/7/7 Norway
COMSAR 1/INF.7 - Portugal
COMSAR 1/INF.14 - Norway
COMSAR 1/INF.15 - Norway
COMSAR 1/WP.1 - Working Group
COMSAR 1/WP.1.Add.1 - Working Group
COMSAR 1/WP.3 - Working Group

8 Ship identification

COMSAR 1/8 - COSPAS-SARSAT
COMSAR 1/8/1 United Kingdom
COMSAR 1/8/2 Russian Federation
COMSAR 1/WP.1 - Working Group
COMSAR 1/WP.1.Add.1 - Working Group
COMSAR 1/WP.3 - Working Group

9 Matters concerning search and rescue, including those related to the 1979 SAR Conference and the introduction of the GMDSS

COMSAR 1/9 - United States
COMSAR 1/9/1 United States
COMSAR 1/9/2 SAR Working Group
COMSAR 1/9/3 Secretariat
COMSAR 1/9/4 Secretariat
COMSAR 1/9/5 United States
COMSAR 1/9/6 United States
COMSAR 1/9/7 Australia
COMSAR 1/9/8 Australia
COMSAR 1/9/9 Secretariat
COMSAR 1/9/10 - United Kingdom
COMSAR 1/9/11 - ICS, ICFTU, IFSMA
COMSAR 1/9/12 - ICS and IFSMA
COMSAR 1/INF.10 - Norway

COMSAR 1/INF.11	- Norway
COMSAR 1/INF.12	- Norway
COMSAR 1/WP.7	- Working Group
COMSAR 1/WP.7/Add.1	- Working Group

10 Completion of the International SAR Plan

No documents submitted

COMSAR 1/WP.7	- Working Group
COMSAR 1/WP.7/Add.1	- Working Group

11 Rescue operations to be carried out inside wrecks

No documents submitted

COMSAR 1/WP.7	- Working Group
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12 SAR training

No documents submitted

COMSAR 1/WP.7	- Working Group
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13 Ro-Ro ferry safety

COMSAR 1/13-	United States
COMSAR 1/13/1	- Report of the ISWG
COMSAR 1/13/2	- Germany
COMSAR 1/WP.7	- Working Group

14 Performance standards for shipborne radio equipment

COMSAR 1/14-	Chairman of the Technical Working Group
COMSAR 1/14/1	- United States
COMSAR 1/14/2	- Norway and Sweden
COMSAR 1/14/3	- Norway and Sweden
COMSAR 1/14/4	- Norway and Sweden
COMSAR 1/WP.3	- Working Group

15 Radiocommunications ITU-R Study Group 8 Matters

No documents submitted

16 Development of measures complementary to the INF Code

No documents submitted

COMSAR 1/WP.3	- Working Group
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17 Transmission of updating information for electronic navigational charts

No documents submitted

18 ITU World Radiocommunication Conference matters

COMSAR 1/18-	Secretariat
COMSAR 1/18/1	- France
COMSAR 1/18/2	- France
COMSAR 1/18/3	- ICS
COMSAR 1/WP.4	- Drafting Group

19 Review of resolutions A.534(13) on the Code of safety for special purpose ships and A.686(17) on the Code of alarms and indicators, as amended

No documents submitted

20 Satellite services (Inmarsat and COSPAS-SARSAT)

COMSAR 1/20-	Inmarsat
COMSAR 1/20/1	- Inmarsat
COMSAR 1/20/2	- COSPAS-SARSAT
COMSAR 1/INF.4	- Inmarsat
COMSAR 1/INF.5	- Secretariat

21 International Code of Signals

No documents submitted

22 Review of resolution A.703(17) on training of radio personnel in the GMDSS

COMSAR 1/22-	United States
COMSAR 1/WP.5	- Drafting Group

23 IMO standard marine communication phrases

No documents submitted

24 Role of the human element in maritime casualties: Guidelines for the on-board use and application of computers

COMSAR 1/24-	IEC
COMSAR 1/WP.3	- Working Group

25 Safety of passenger submersible craft

COMSAR 1/25-	France
COMSAR 1/25/1	- Finland

26 Review of reporting requirements in IMO instruments

No documents submitted

27 Work Programme

No documents submitted

28 Election of Chairman and Vice-Chairman for 1997

No documents submitted

29 Any other business

COMSAR 1/29-	Secretariat
COMSAR 1/INF.3	- United States
COMSAR 1/INF.13	- United States
DE 39/30/2	- IEC

30 Report to the Maritime Safety Committee

COMSAR 1/WP.8 (Draft Report) - Secretariat

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COMSAR 1/INF.1 - List of Participants

ANNEX 2**DRAFT MSC CIRCULAR****IMPLEMENTATION OF THE GLOBAL MARITIME DISTRESS
AND SAFETY SYSTEM (GMDSS)****Introduction**

1 The Sub-Committee on Radiocommunications, at its fortieth session (16 to 20 January 1995), noted that investigations had shown that only a minor proportion of ships had converted to the GMDSS. In response, the Sub-Committee issued COM/Circ.121 which invited Administrations "to strongly recommend to their shipowners and ship operators to take early action to ensure that equipment meeting GMDSS carriage requirements is fitted on their ships well in advance of 1 February 1999".

2 The Sub-Committee on Radiocommunications and Search and Rescue (COMSAR), at its first session (19 to 23 February 1996), noted that the situation has not improved and that only a small percentage of the world's fleet had converted to the GMDSS.

3 The Sub-Committee also noted that manufacturers continue to advise that they will be unable to meet a large surge in demand in 1998 and that early conversion to the GMDSS should be sought.

Phased installation of the GMDSS

4 The Sub-Committee has been advised that in order to assist shipowners and ship operators, some Administrations have developed schemes whereby shipowners and ship operators can adopt a phased programme for the installation of GMDSS equipment. The equipment will be installed and commissioned, but will then be immobilized until the ship is ready to change to the new system.

5 These schemes allow shipowners and ship operators to arrange installation work to coincide with a ship's scheduled stay in port, at the same time spreading the financial burden of equipment purchase, and allowing the manufacturers to spread their manufacturing load over a reasonable period.

6 The GMDSS equipment will not be subject to survey during the period that the ship continues to operate under the old distress system. During this phased installation period, the operation of the ship station must be in accordance with non-GMDSS requirements and not be operationally impaired in any way by the new equipment.

7 During the conversion process, Administrations are advised to issue to the ship documentation explaining the status of the radio installation and the type of certificates carried by the ship and the radio operators.

GMDSS radio operator training

8 Shipowners and ship operators are reminded that in accordance with SOLAS regulation IV/16 - Every ship shall carry personnel qualified for distress and safety radiocommunication purposes to the satisfaction of the Administration. These personnel shall be holders of certificates specified in the Radio Regulations as appropriate, any one of whom shall be designated to have primary responsibility for radiocommunications during distress incidents.

9 Administrations are also reminded that resolution A.769(18) provides procedures and arrangements

for issuing GMDSS certificates to holders of non-GMDSS certificates by "limited GMDSS examination". In order to encourage a timely conversion of existing non-GMDSS certificate holders, it should be borne in mind that the arrangements for "limited GMDSS examination" should cease on 1 February 1997. After this date all candidates should be required to pass the full GMDSS examination.

10 New entrants, or those not wishing to do the "limited GMDSS examination", should be required to pass a full GMDSS General Operator's Certificate (GOC) examination. Purpose designed training courses which incorporate at least the content identified in the IMO GOC model training course should be made available to prepare the candidate for the GOC examination.

11 A significant problem experienced thus far with the implementation of the GMDSS has been the extremely high occurrence of false distress alerts, with the majority of these false alerts attributed to operator incompetence. The lack of adequate mandatory training could be the primary cause of this problem. The STCW Convention was revised in 1995 to increase the minimum standards of competence for the GMDSS GOC and it is extremely important that Administrations implement at least these standards as soon as possible in their examinations for the GOC.

Conclusions

12 Therefore, the Maritime Safety Committee in considering the above matters at its sixty-sixth session (28 May to 6 June 1996), recognized that:

- .1 there is a need to urgently install GMDSS equipment on ships and to train sufficient radio personnel as GMDSS operators;
- .2 shipowners and ship operators should be made aware that Administrations will not grant exemptions from the carriage of GMDSS equipment, other than those provided for under regulation 3 of SOLAS chapter IV, after 1 February 1999; and
- .3 if ships have not installed GMDSS equipment and do not have a passenger ship safety certificate and form P or cargo ship safety radio certificate and form R valid for the GMDSS or appropriately certificated radio personnel after 1 February 1999, then such ships could experience considerable delay awaiting the supply of GMDSS equipment and the inability to trade because of non-compliance with the SOLAS or STCW Conventions, or both.

ANNEX 3

PROPOSED MODIFICATIONS TO RECOMMENDATION ITU-R M.541-5

"Procedures and operational instructions for DSC- Distress Calls"

General

The proposed changes in procedures and operational instructions for DSC for distress purposes are referred to documents from **ITU Radiocommunication Study Group-8**; Recommendation ITU-R M.541-5 with reference to its annex 1 and annex 3.

Introduction

- 1 RCC Stavanger have, through the last 3 years since the implementation of GMDSS started 1 February 1992, had some experience with the GMDSS. In general the experience with GMDSS indicates an improvement of the possibilities for a ship in distress to alert a coast station (CRS) or a rescue co-ordination centre (RCC). But there are also experienced an enormous increase in false or inadvertent distress alerts, which mainly are caused by the Digital Selective Calling, DSC (100 % false or inadvertent distress alerts).
- 2 These false or inadvertent distress alerts have been studied to find what the reason might be. From our point of view we are convinced that this is caused by a combination of:
 - Lack of knowledge and understanding of the DSC system by operators both at sea and ashore;
 - lack of knowledge by operators on how the equipment works;
 - equipment design;
 - slightly improper procedures, which might be misinterpreted by operators.
- 3 At the 12th North Sea/Baltic DSC meeting Norway presented a document (Doc 12/3/4) with proposals for changes in the DSC Operational procedures. The meeting agreed to support the main philosophy with the proposed changes, with respect to Rec 541 annex 1 paragraph 3.3 and annex 3 part A paragraph 1.2.
- 4 With reference to the conclusions made at the meeting, and with some additions, Norway has made some revised proposals in an attempt to clarify and improve the operational procedures. The proposals are made specifically with respect to annex 1 and to annex part A:
 - § 1.2 acknowledgement of DSC distress alert (renamed);
 - § 1.3 distress traffic, (to ascertain the correct position of a distress incident);
 - § 1.4 transmission of a DSC distress relay alert;
 - § 1.5 acknowledgement of a DSC distress relay alert received from a coast station (to ensure use of radiotelephony when acknowledging and to avoid unnecessary acknowledgement of distress relays).

These proposed modifications are listed on pages 2, 3 and 4 of this annex.

With reference to: **Recommendation ITU-R M.541-5 Annex 1, Provisions and procedures for distress and safety calls**

(The proposals are shown by underline for additions and cross out for deletions respectively.)

Paragraph 3.3 -ACKNOWLEDGEMENT OF DISTRESS CALLS

Reverse the order of paragraphs:

present paragraph 3.3.3 should become paragraph 3.3.1 reword and renumber existing paragraph 3.3.1 to become 3.3.2 renumber existing paragraph 3.3.2 to become paragraph 3.3.3 which then should read:

- 3.3.1 Distress calls should normally be acknowledged by DSC only by appropriate coast stations. Coast stations should in addition, set watch on radiotelephony and, if the "mode of subsequent communication" signal in the received distress call indicates teleprinter, also on narrow-band direct-printing (NBDP) (see Recommendation ITU-R M.493). In both cases, the radiotelephone and NBDP-frequencies should be those associated with the frequency on which the distress call was received.
- 3.3.2 Acknowledgement by coast stations of DSC distress calls transmitted on MF and HF should be initiated with a minimum delay of 1 minute after receipt of a distress call, and normally within a maximum delay of 2 ³/₄ minute. This allows all calls within a single frequency or multi-frequency call attempt to be completed. Acknowledgements by coast stations on VHF should be transmitted as soon as practicable.
- 3.3.3 The acknowledgement of a distress call consists of a single DSC acknowledgement call which should be addressed to "all ships" and include the identification (see Recommendation ITU-R M.493) of the ship whose distress call is being acknowledged.

With reference to **Recommendation ITU-R M.541-5 Annex 3, Part Instructions for ships**

Paragraph 1.2ACKNOWLEDGEMENT OF A DSC DISTRESS ALERT

Title is renamed to read:

1.2 ACTIONS ON RECEIPT OF A DSC DISTRESS ALERT

Ships receiving a DSC distress alert from another ship should not normally acknowledge the alert by DSC since acknowledge of a DSC distress alert by use of DSC is normally made by coast stations only.

Only if no other station seems to have received the DSC distress alert, and the transmission of the DSC distress alert continues, the ship should acknowledge the DSC distress alert by use of DSC to terminate the call. The ship should then, in addition, inform a coast station or a coast earth station by any practicable means.

Ships receiving a distress alert from another ship should also defer the acknowledgement of the distress alert by radiotelephony for a short interval, if the ship is within an area covered by one or more coast stations, in order to give the coast station time to acknowledge the DSC distress alert first.

Ships receiving a DSC distress alert from another ship shall:

- watch for the reception of a distress acknowledgement on the distress channel (2187,5 kHz on MF and channel 70 on VHF);
- acknowledge the receipt of the distress alert by transmitting the following by radiotelephony on the distress traffic frequency in the same band in which the DSC distress alert was received, i.e. 2182 kHz on MF and channel 16 on VHF.

NOTE 1 - Ships out of range of a distress event or not able to assist should only acknowledge if no other stations seem to acknowledge the receipt of the DSC distress relay alert.

- Acknowledging procedures:
- MAYDAY
 - the 9-digit identity of the ship in distress, repeated 3 times,
 - this is,
 - the 9-digit identify or the call sign or other identification of own ship, repeated 3 times,
 - RECEIVED MAYDAY

Paragraph 1.3DISTRESS TRAFFIC

- Modify the fourth indent as follows:
| the ship's position if not included in the DSC distress alert in latitude and longitude or other reference to a known geographical location.

Paragraph 1.4TRANSMISSION OF A DSC DISTRESS RELAY ALERT

- add a new last indent as follows:
- prepare for the subsequent distress traffic by tuning the transmitter and the radiotelephony receiver to the distress traffic channel in the same band, i.e. 2182 kHz on MF and channel 16 on VHF, while waiting for the DSC distress acknowledgement.

Paragraph 1.5ACKNOWLEDGEMENT OF A DSC DISTRESS RELAY ALERT RECEIVED FROM A COAST STATION

- Coast stations ~~will~~, after having received and acknowledged a DSC distress alert, ~~normally~~ | may, if necessary, retransmit the information received as a DSC distress relay call, addressed to all ships, all ships in a specific geographical area, a group of ships or a specific ship.
- Ships receiving a distress relay call transmitted by coast stations shall not use DSC to acknowledge the call, but should acknowledge the call by radiotelephony on the distress traffic channel in the same band in which the relay call was received, i.e. 2182 kHz on MF and channel 16 on VHF.

The acknowledgement is transmitted as follows:

- MAYDAY
- The 9-digit identity or the call sign or other identification of the calling coast station,
- this is,
- the 9-digit identity or the call sign or other identification of own ship,

- RECEIVED MAYDAY

NOTE 1 - Ships out of range of a distress event or not able to assist should only acknowledge if no other stations seem to acknowledge the receipt of the DSC distress relay alert.

ANNEX 4**DRAFT MSC CIRCULAR****GUIDANCE TO ADMINISTRATIONS ON IMPROVING THE CAPABILITY OF
SHORE AUTHORITIES TO CONTACT SHIPS DURING SITUATIONS
INVOLVING DISTRESS OR SAR OPERATIONS**

1 At its sixty-sixth session the Maritime Safety Committee, recalling SOLAS regulation V/10 - Distress messages obligations and proceedings and the relevant other international conventions which obligate masters of ships to assist others in distress at sea, noted that situations have occurred during implementation of GMDSS where search and rescue (SAR) authorities have been unable to contact ships known to be fitted with GMDSS equipment to verify a distress situation or seek their assistance.

2 The Committee, recognizing the great importance of reliable shore-to-ship communications under the GMDSS in enabling assistance to be rendered to those in distress, and desiring to identify and resolve problems which may contribute to shore-to-ship communication difficulties invited Administrations to:

- .1 contact owners or operators of ships entitled to fly their flag or the Administration of registry of other ships which fail to respond to calls from search and rescue authorities ashore, to determine the reason for their not responding;
- .2 arrange for a GMDSS compliance inspection or take other appropriate corrective action regarding a ship under their jurisdiction which fails to respond to calls from search and rescue authorities;
- .3 develop an effective national information and follow-up programme to ensure that responsible authorities, manufacturers, training institutes, shipping officials and GMDSS service providers know, understand and properly implement the requirements of SOLAS regulation V/10 and the recommendations of the Organization regarding distress and safety communications and assisting persons in distress;
- .4 provide guidance to ships on the importance of equipment registration, of proper watchstanding, of avoiding false distress alerts, and of following up to cancel any inadvertent distress alerts;
- .5 review broadcast practices to minimize excessive use of messages which cause alarms on ship bridges, of message categories which cannot be suppressed by the ship, of unnecessary duplication of information to the same ocean areas, or of transmission to an unnecessarily large area or number of ships; and
- .6 ensure that search and rescue authorities have ready access to suitable GMDSS databases to support SAR, and access, as appropriate, to use of DSC coast stations domestically or through co-operative arrangements with neighbouring States or assisting ships.

ANNEX 5**DRAFT AMENDMENTS TO RESOLUTION A.706(17)
WORLD-WIDE NAVIGATIONAL WARNING SERVICE**

To remind NAVAREA and national Co-ordinators of the absolute necessity to monitor their broadcasts on SafetyNET and NAVTEX in order to provide the most efficient and effective services to mariners and reduce their own costs to a minimum, it is proposed to amend Annex 1 of resolution A.706(17) as follows:

- to add new paragraph 6.2.1.15, "Monitor the broadcasts which they originate to ensure that the messages have been correctly broadcast";
- to add new paragraph 6.2.1.16:

"Co-ordinate preliminary discussions between Member States seeking to establish NAVTEX services and neighbouring administrations, prior to formal application".
- to add new paragraph 6.6.1.13, "Monitor the broadcasts which they originate to ensure that the messages have been correctly broadcast".

ANNEX 6

STATEMENT BY THE DELEGATION OF BAHRAIN

1 In the absence of any distinguished delegate from Qatar, I would like to reiterate Bahrain's willingness to meet with representatives of Qatar to discuss the delimitation of the sub-areas between Bahrain and Qatar for the promulgation of Maritime Safety Information (MSI) in the Arabian Gulf.

2 If, however, it did not prove possible to convene such a meeting with representatives of Qatar or if any such meeting were unable to reach a conclusion, then Bahrain believes that the question of delimitation of the sub-areas should be deferred until such time as the international maritime boundary between Bahrain and Qatar has been settled.

3 In the meantime, the Government of Bahrain will continue to promulgate MSI and closely co-operate with all the Gulf countries to ensure the highest standard of safety of navigation to all shipping in the area.

ANNEX 7

**DRAFT AMENDMENTS TO RESOLUTION A.810(19) - PERFORMANCE STANDARDS
FOR FLOAT-FREE SATELLITE EMERGENCY POSITION - INDICATING
RADIO BEACONS (EPIRBs) OPERATING ON 406 MHZ**

In paragraph 4 of the annex:

- .1 Delete "Until 1 February 1999" in the second sentence.
- .2 Delete "After 1 February 1999, all new beacon installations should be in accordance with method .1" and the "footnote" to paragraph 4.

ANNEX 8**DRAFT ASSEMBLY RESOLUTION****Guidance to Administrations on development of shore-based
SAR telecommunication infrastructure**

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety and the prevention and control of marine pollution from ships,

RECALLING ALSO that, in order to reduce time delays and enable more efficient search and rescue (SAR) operations, it is necessary to improve the efficiency of the SAR communications infrastructure on an end-to-end basis including the preservation of priority handling of SAR traffic in the landline systems,

RECOGNIZING that emerging technologies, such as display of caller identification, automatic decode of certain message parameters and retrieval of emergency data from associated databases, would enhance the SAR communications system thereby improving life-saving capabilities,

HAVING CONSIDERED the recommendations of the Maritime Safety Committee at its [sixty-sixth] session,

RECOMMENDS that Administrations consider implementing some or all of the following options where practicable to enhance the processing of distress alerts and the effectiveness of SAR co-ordination and operations:

- (a) use switching and software arrangements for land connections to rescue co-ordination centres (RCCs) from shore facilities like coast earth stations, DSC coast stations, and mission control centres to preserve the message priority;
- (b) equip RCCs with ship-earth stations in areas of unreliable landline operation to facilitate emergency communications between RCCs and coast earth stations, and to enable direct communications with ships when required;
- (c) arrange for distribution of alerts in accordance with the IMO SAR Plan where they apply, or otherwise to associated RCCs or search and rescue points of contacts (SPOCs) and study the possibility for:
 - (i) appropriate software to automatically decode any message parameters not in plain language prior to or upon delivery of distress alerts to the RCC; and
 - (ii) appropriate software to automatically retrieve supporting emergency data on distressed ships from available databases prior to or upon delivery of distress alerts to the RCC.

ANNEX 9

STATEMENT BY THE TUNISIAN DELEGATION

1 Tunisia participated in the Mediterranean Sea Seminar and Workshop on Maritime Search and Rescue and the Global Maritime Distress and Safety System held in Toulon from 4 September 1995.

2 As indicated in the International Maritime Organization's circular letter No.1799 of 21 February 1995, the seminar and workshop was intended for those in charge or expecting to be in charge, of maritime search and rescue and radiocommunication services and those employed in rescue co-ordination centres, coast earth stations, coast radio stations, hydrographic and meteorological services and those employed in similar work.

3 These technical experts participated in the seminar and workshop for the purpose of receiving training and information in the fields of maritime search and rescue and communications within the framework of the Global Maritime Distress and Safety System.

4 The seminar and workshop was consequently not an appropriate forum for discussing issues concerning delimitation or for adopting resolutions on such issues, particularly since the participants had not been given a mandate to take any such decisions.

5 The Tunisian Government wishes to state that the delimitation of areas of responsibility for search and rescue can only be undertaken with the participation of all the States concerned in these areas and that the resolution adopted by the seminar and workshop and which is annexed to document COMSAR 1/9/3 cannot under any circumstances be considered as having any antecedence in delimiting these areas of responsibility.

ANNEX 10**STATEMENT BY THE DELEGATION OF MEXICO**

The delegation of Mexico referred to the recent entry into force of the Assembly's decision which stated that working documents should be available in all the working languages at least five weeks before the commencement of meetings of the various IMO bodies. Mexico pointed out that during 1996 continual delays had been experienced in the availability of documents. An even more serious situation existed in the COMSAR Sub-Committee. Forty-two of the seventy substantive documents had not been available in Spanish by the stipulated period (a few had not been available in English either), a figure which represented more than half of the documentation. Mexico wishes to emphasize the fact that for three agenda items (items 8, 20 and 22), not one document had been available. As well as being a failure to observe a principle, the absence of documentation by the prescribed time presented a practical problem: it hindered Administrations in their study of the proposals made and in briefing their delegates. Mexico emphasized that its delegation was not receiving sufficient information to enable it to participate on an equal footing in some of IMO's bodies and reiterated its request that the situation should be remedied as soon as possible, in accordance with the Organization's procedures.

ANNEX 11

DRAFT REVISED WORK PROGRAMME OF THE SUB-COMMITTEE

		Target completion date
1	Global maritime distress and safety system (GMDSS)	
	.1 matters relating to the GMDSS Master Plan	Continuous
	.2 replies to questionnaire on casualties	Continuous
	.3 exemptions from radio requirements	Continuous
2	Promulgation of maritime safety information (MSI) (in cooperation with ITU, IHO, WMO and Inmarsat)	
	.1 operational and technical coordination provisions of MSI services	Continuous
	.2 International SafetyNET Service	Continuous
3	ITU World Radiocommunication Conference matters	Continuous
4	Radiocommunication ITUR Study Group 8 matters	Continuous
5	Satellite services (Inmarsat and COSPASSARSAT)	Continuous
6	Matters concerning search and rescue, including those related to the 1979 SAR Conference and the introduction of the GMDSS	
	.1 harmonization of aeronautical and maritime search and rescue procedure, including SAR training matters]	Continuous

_____ reflect proposed deletion
bold letters represent new proposals

Target

		completion date	
	.2 plan for provision of maritime SAR services including procedures for routing distress information in the GMDSS	Continuous	
	.3 revision of the IMOSAR and MERSAR manuals	Continuous	
H.1	Work consequential to the 1988 GMDSS Conference		
	.1 clarification of SOLAS GMDSS provisions	1997	
	.2 review of SOLAS regulation IV/15.7 and resolution A.702(17) on radio maintenance guidelines for the GMDSS related to sea areas A3 and A4	1997	
	.3 review of the locating functions in the GMDSS	[1997]	
H.2	[Future] implementation [and the use] of the GMDSS requirements in respect of existing fishing vessels [by nonConvention ships]	[1998]	
H.3	Performance standards for shipborne radio equipment and review of GMDSS equipment performance	1997	
H.4	International Code of Signals	[1997]	
H.5	Ship identification		
	.1 <u>406 MHz EPIRBs</u>	<u>1996</u>	
	.2 <u>ship station identification (SSI) numbers for DSC and SES</u>	<u>1996</u>	
	.3 VTS and identification transponders (in co-operation with NAV)	[1998]	
	_____ reflect proposed deletion		
	bold letters represent new proposals		

	Target completion date	
<u>H.6</u> 7 Emergency radiocommunications: false alerts and interference	[Continuous]	
H. <u>7</u> 6 Review of resolution A.703(17) on training of radio personnel in the GMDSS	[1997]	
<u>H.8</u> <u>Development of measures complementary to the INF Code</u>	<u>1996</u>	
<u>H.9</u> <u>Review of resolutions A.534(13) on the Code of Safety for Special Purpose Ships and A.686(17) on the Code of Alarms and Indicators, as amended</u>	<u>1996</u>	
<u>H.10</u> 8 Completion of the International SAR Plan	[Continuous]	
H. <u>11</u> 7 Rescue operations to be carried out inside wrecks [1997]		
H. <u>12</u> 8 IMO standard marine communication phrases (co-ordinated by NAV)	[1997]	
H. <u>13</u> 9 Ro-ro ferry safety		
.1 performance standards for VHF/UHF portable radiotelephones	1997	
.2 co-ordination of the MERSAR manual and the Guide to Helicopter/Ship Operations	1997	
.3 future work on SAR matters	1997	
.4 review of the SAR Convention	1997	
[H.10 Review of the Joint IMO/IHO/WMO MSI Manual]	[1998]	
<hr/>		
<u> </u> reflect proposed deletion		
bold letters represent new proposals		

		Target completion date	
[H.11	Review of resolution A.764(18) - Establishment, updating and retrieval of the information contained in the registration databases of satellite EPIRBs]	[1998]	
<u>L.1</u>	9 Role of the human element in the maritime casualties : <u>guidelines for the onboard use and application of computers (coordinated by DE)</u>	[Continuous] <u>1996</u>	
<u>L.2</u>	1 Safety of passenger submersible craft (co-ordinated by DE)[1997]		
<u>L.3</u>	<u>Review of reporting requirements in IMO instruments (coordinated by FSI)</u>	<u>1996</u>	
<u>X.X</u>	<u>SAR training</u> <u>1996</u>		
<u>X.X</u>	<u>Transmission of updated information for electronic navigational charts</u>	<u>1996</u>	

 reflect proposed deletion
bold letters represent new proposals